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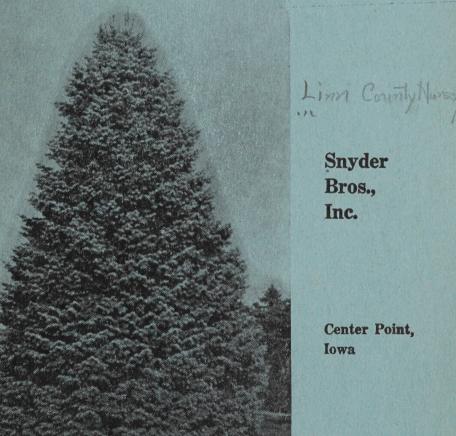
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# Hardy Plant Material

for 1941

U. S. Department of Agriculture

CONCOLOR FIR See Inside Cover.





THE TREE SHOWN ON THE OUTSIDE COVER is the large Concolor Fir so much admired by all visitors to the nursery grounds, and often pronounced by them to be the most beautiful tree they have ever seen. This is a remnant of the first tree planting on this site in 1908. It is now over 30 feet high and very symmetrical although it could not be sold when young because it was too crooked and ill-shaped. This shows the remarkable ability of the Concolor to develop a regular form when given room to do so. No other evergreen retains its lower branches and beautiful outline better as it grows old.

THIS PRICE LIST also gives brief descriptions and cultural notes of the main stock available for 1941. Many items can be supplied in quantities too limited to list and will be quoted on request, if the particular line of stock wanted is indicated. The supply of evergreens and many of the better kinds of shrubs available for spring is very limited and cannot be increased so we do not obligate ourselves to supply such scarce items after our stock of them has been exhausted. Order your stock sent as soon as weather conditions will permit.

EQUIPMENT. A clay block building 100 x 100 feet with a large double-walled, insulated apartment provides room for storing and packing deciduous trees and shrubs with a minimum loss of vitality.

LOCATION. The nursery is on paved Highway No. 11, which connects with the Lincoln Highway seventeen miles south at Cedar Rapids, and with No. 20, twenty-five miles north, at Independence. The office and storage house are just south of C. R. I. & P. station grounds and across the tracks from the Highway. The fruit and nut orchards are one and one-half miles south of the nursery on No. 11.

VISITORS can motor through the nursery when it is dry, on well maintained drives.

BUSINESS HOURS. 7 to 12 A.M. and 1 to 6 P.M. week days. Please do not expect digging done after regular hours or on Sundays.



## **EVERGREENS**

TRANSPLANTING. All evergreens we offer are dug fresh as sent out. If the buyer comes to the Nursery after them, which is the best way to do, they can be lifted directly from the row to his truck or trailer and have a minimum of exposure. This is very important with those dug bare rooted. If the roots of evergreens once become thoroughly dry in handling or planting they cannot be revived, as can other trees. Failure in transplanting them is due largely to allowing them to become dry while planting; to not packing good mellow soil, or much better yet a mixture of equal parts of such soil and pulverized, moist peat, very firmly around the roots; or to not watering them and conserving the moisture about them through the summer by frequent shallow cultivation or by mulching. An area 3 to 4 inches deep and 3 feet in diameter or as wide as the spread of the tree can be filled with pulverized peat instead of soil and will provide the ideal means of getting water into the soil about the roots and holding it. August and September are critical months for newly planted evergreens unless there is ample moisture.

**SPACING.** For single row windbreaks plant pines and spruces 7 to 8 feet apart; for double rows of pines or spruces, 10 to 12 feet. For low hedges to be sheared, plant 18 to 24 inches apart, depending on the size of the plants.

**SOILS.** Plant pines on dry or well-drained soil. All pines, and particularly White Pine, may be short-lived if planted in very rich soil such as an old feed lot, or where drainage from a feed lot runs onto them. In places where it is quite wet at times spruce will do better than pine and in very moist or swampy soil Arborvitae is best of all.

PESTS. Red Spider or Mite causes much damage if there are not frequent dashing showers in early summer to destroy the young and a rusty appearance is likely to be due to them. Water applied under a high pressure to the tops every few days is an effective remedy. Pine Needle Scale is found almost everywhere and under favorable conditions may become a serious pest. White spots on the leaves of pine or spruce are likely due to it. Both this and Red Spider can be controlled by a single thorough spraying with Lime Sulphur such as orchardists use, in the regular dormant strength (1 to 8 of water) applied on warm days in spring before the new growth starts. Soluble oil sprays also are effective, but must be used with much caution. With frequent dashing showers through June, when the young are crawling, neither of these pests is likely to be serious.

# BARE ROOTED EVERGREENS

for windbreaks and hedges

**PRICES** in this section are for unsheared trees and do not include Ball and Burlap. If wanted that way, the expense of making it and cost of handling the addition weight must be added. Each X represents one transplanting.

PINE—Austrian.  A tall tree with rich green bristly foliage. Endures heat and drought splendidly.	Size 2- 3 ft. XX 3- 4 ft. XX 4- 5 ft. XX	X .85	Per 10 \$7.00 8.00 9.00	Per 100 \$
—densifolia, Japanese Red Pine.  80-90 ft.  Long dark foliage, sometimes browned in winter. Rapid growing when young. Picturesque when old.	3- 4 ft. X	X .60	4.50 5.50 6.50	40.00 50.00 60.00
—ponderosa, Bull Pine. 50-60 ft	15-18 in. XX	X .60	4.50 5.50 6.00	40.00 50.00
—Scotch. 40-50 ft.  Easy to transplant and rapid growing while young; makes a wide-spreading tree with yellow-red scaling bark.			7.50 9.00	
—White, Pinus strobus. 70-90 ft.  One of Iowa's few native conifers and one of the best for windbreaks. Tolerates some shade and considerable drought, but not wet soil.	5- 6 ft. XX	X 1.25	9.50 12.00 14.00	
SPRUCE—Norway.  One of the most rapid growing spruces. Planted very extensively for windbreaks.	18-24 in. XX	X .60	4.50 5.50 7.50	40.00 50.00
ARBORVITAE.  Useful for windbreak planting in very wet places, and for hedges in places not too hot and dry.			7.00 8.50	

# SPECIMEN EVERGREENS WITH BALL AND BURLAP

The following prices are for well developed trees mostly sheared, dug with a solid ball of earth and securely burlapped and bound. Read the paragraph on transplanting on the previous page. Do not remove the burlap. Dig the hole large enough that it can have a 2-inch lining of peat. After the tree is in the hole and enough mixed peat and soil filled in to hold it, cut the burlap loose around the top and pour in plenty of water, otherwise proceed as with bare rooted trees. Large trees over 9 feet should be ordered before hard freezing so they can be mulched for winter digging, and the ball of dirt frozen solidly before moving. Imperfect specimens (defective on the side or at the bottom) can often be used as effectively in groups and will be priced according to quality. Each X represents one transplanting.

ARBORVITAE—American, Thuja occidentalis.	Size	9		Each
-Douglas Pyramid.	3-4	ft.	XX	\$ 2.50
A very narrow pyramid with twisted clusters of	4-5	ft.	XX	3.00
foliage open growing unless sheared.				

	Size			Tools
-Geo. Peabody's Golden. 12-15 ft.	2-3	ft.	XXX	Each 2.00
A clear golden yellow on the tips; needs shearing to make it compact. Best golden variety.	3-4 4-5		XXX	2.50
to make it compact. Best golden variety.			XXX	4.00
	6-8	ft.	XXX	5.00
-Globes. 4-5 ft.	. 2-3			3.00
Naturally assume a globular form without shearing. Fine in formal plantings.	3-31/2 31/2-4			4.00
rine in formar plantings.	372-4	11.	AA	5.00
-Pyramidal. 15-20 ft.	18-24	in.	XXX	2.00
Grows in columnar form without shearing. Brighter and darker green than the common Arborvitae.			XXX	2.75 3.75
Much used in entrance, foundation, and formal plant-			XXX	7.00
ings. Best trained to one stem, no other training is needed. Like other Arborvitae, sometimes sunburned				
if too severely exposed to the hot sun of late winter,				
and prefers cool, moist soil.				
—Siberian. 10-15 ft.	21/2-3			3.00
One of the hardiest of all the Arborvitae, very compact, broadly conical in form with dense, dark			XXX	4.00 5.00
green foliage. With very little shearing can be made	1-0	16.	MAA	5.00
into perfect globes. Unsheared old plants have a				
billowy outline like Boxwood.				
-Umbraculifera, Umbrella Arborvitae. 3 ft.	9-12	in.	XX	1.25
A low bush with umbrella-like top and dark green foliage.			XX	1.50 2.00
			XXX	2.00
FIR—Concolor. 70-80 ft	2-21/2			2.50
evergreen which grows here, and the most free	21/2-3	ft.	XXX	3.00
from pests. The foliage is long, flat, curved, and not prickly like other evergreen foliage. The color			XXX	4.00 5.00
ranges from silvery blue to clear green. Old trees			XXX	6.00
have a regular conical outline and retain their branches to the ground. Concolors endure heat and	6-7	It.	XXX	7.00
drought splendidly but do not like being crowded				
and do not thrive in a smoky or sooty atmosphere.				
-Douglas, Pseudotsuga douglasi. The Colorado type.	10 94	in	XX	1.50
Also known as Douglas Spruce. 70-80 ft. Soft, flexible, beautiful green foliage. Vigorous and	2-3		XX	2.00
graceful, retaining its beauty in old age. Tolerates			XX	3.00
considerable shade.	4-5	11.	XX	4.00
HEMLOCK—Canadian, Tsuga canadensis. 30-40 ft.	.15-18 18-24		XXX	1.50 2.00
	2-21/2			2.50
and silvery striped beneath. It shears splendidly.	21/2-3	ft.	XXX	3.00
Some shade is preferred and it tolerates full shade, so is indispensable for many places where there is	3-31/2	It.	XXX	4.00
too much shade for other evergreens. If fully ex-				
posed to the sun and dry winds Hemlocks are likely to be burned. In planting use plenty of peat.				
to be burned. In planting use plenty of peat.				

	Size			Each
—Sargent's Weeping Hemlock.  A flat topped form with spreading branches and drooping branchlets. Very rare.	3-4 4-5	ft. ft.	XXX	10.00 12.50
JUNIPER—Juniperus.	15.10		3737	0.50
—Pfitzer, J. Chinensis pfitzeriana. 5-6 ft.  A dwarf variety of the Chinese Juniper. The foliage is bluish-green and the branches grow out horizontally from the stem, which gives the tree an individuality of its own. Sizes apply to width rather than height. This is the best Juniper for foundation planting.	15-18 18-24 2-2½ 5-6	in. ft.	XX	2.50 3.00 4.50 10.00
—Sargent, J. Chinensis sargenti. 1 ft.  A prostrate form of Chinese Juniper. Makes a dense mat with both scale-like and pointed leaves. Prefers much sun.	. 2-2½	ft.	XX	3.00
—Blue Creeping, J. horizontalis glauca. A prostrate form with long creeping branches and blue foliage. Very fine for walls.	21/2-3	ft.	XX XX XX	2.50 3.50 4.00
—Savin, J. sabina. 4-5 ft.  A bushy little tree with semi-erect branches and clear green foliage. Excellent for foundation plantings, rockeries, or dry sunny places. Endures city atmosphere well. Remains green in winter.	4-5 6-8		XX XX	6.00 8.00
—Von Ehron.  A very rapid growing form of Savin and superior to it.	.18-24	in.	XX	3.00
—Scopulorum, Colorado Juniper. Especially fine in dry hot climates. Upright with silvery green quite smooth foliage.	.12-18 18-24 2-2½ 2½-3	in. ft.	XX XX	1.50 2.00 2.50 3.00
—Colorado Juniper, J. Scopulorum No. 100.  A selected, grafted, upright form. Resembles Hill's Silver.	. 2-2½ 2½-3	ft. ft.	XX XX	3.50 4.00
—North Star.  A selected pyramidal form of the Colorado Juniper with green whipcord foliage, changing little in winter.	. 2-2½ 2½-3	ft. ft.	XX XX	3.00 4.00
—Red Cedar, J. virginiana. 25-30 ft.  Sheared specimens of our native Red Cedar. Splendid blue or green in summer, purplish red in winter.		ft.	XX	1.50 2.00 2.50 3.00
—Cannart, J. virginiana cannarti. 15-20 ft	. 3-3½ 3½-4	ft. ft.	XX XX	4.00 5.00
—Silver Red Cedar, J. virginiana glauca. 15 ft	. 3-4	ft.	XX	4.50

—Dundee, J. virginiana pyramidiforma hilli.  A grafted, narrow pyramidal form with compact regular growth without shearing.	Size 18-24 2-2½ 2½-3		XX XX XX	Each 2.00 2.50 3.50
—Canada, Common, or Prostrate, J. communis depressa.  3 ft.  A spreading low form with upright branches, silvery marked, pointed foliage.	3-4	ft.	xx	3.00
—Golden Canada, J. communis depressa aurea.  A form of the above with bright golden new growth.	3-4	ft.	XX	4.00
—Andorra, J. communis depressa plumosa. 1½ ft.  A rich bright green in spring and summer, and attractive purplish bronze in winter. Very hardy and prefers mostly sun. Very rapid growing.	15-18 18-24	in.	XX XX	2.00 2.50
LARCH—European. 50-60 ft.  A conifer, but not an evergreen. Makes a strikingly beautiful specimen in large landscapes. The foliage is especially beautiful; soft green in spring, and soft yellow in the fall.				2.00 2.50
PINE—Austrian, Pinus Nigra. 40-60 ft.  Long, rich green, coarse foliage. Vigorous. Fine in background. Endures the smoky atmosphere of the cities better than most evergreens.	2-3 3-4	ft. ft.	XX XX	2.50 3.00
—flexilis, Limber Pine. 40 ft			XX XX	3.50 4.00
—Japanese Red Pine, P. densifolia. 40-50 ft	3-4 4-5		XX XX	2.50 3.00
—Mugho, Dwarf Mountain Pine. 3-5 ft	18-24 2-2½ 2½-3 3-3½ 3½-4	in. ft. ft. ft. ft.	XXX XXX XXX XXX XXX XXX XXX	2.50 3.00 4.00 5.00 6.00 7.00 8.00
—Scotch, P. Sylvestris. 25-30 ft.  Bright green at all times, and endures city conditions exceptionally well. Shears well.	3-4	ft.	xxx	2.50
—White, P. strobus. 60-100 ft.  The softest foliage of the pines. Endures some shade. It is the longest lived and especially beautiful. Must be in well-drained soil. Well rooted but not real compact specimens.	4-5 5-6		XXX	3.00 4.00

SPRUCE—Black Hills. 50-70 ft.  A native of the Black Hills. It does very well over a wide range and makes the finest specimens of all spruce. This is a very variable species, ranging from very compact dwarfs to more open, rapid-growing trees, and from clear green to silvery bluegreen. Our trees are mostly a very compact and slow-growing type. In dry seasons it should be closely watched and treated for Red Spider.  —Colorado Blue, Picea pungens. 25-40 ft. Blue or green as listed below.	$2\frac{1}{2}-3$ $3-3\frac{1}{2}$	ft. ft. ft. ft. ft. ft.	XXX XXX XXX XXX XXX XXX	Each 2.50 3.00 3.50 4.00 5.00 6.00 7.00
—Selected Blue Specimens, Shiners.  More used as a specimen tree than any other evergreen. Rather slow-growing, regular compact, with very sharply pointed blue foliage. Subject to Red Spider injury if neglected.	18-24 2-2½ 2½-3	in. ft. ft.	XXX	2.50 3.00 4.00 5.00 6.00
—Green Specimens.  The same fine, compact form as the Shiners, but with clear green or slightly blue-green foliage. Sometimes but not always, they develop a blue color with age. Larger sizes are \$1.00 per foot.	$2-2\frac{1}{2}$ $2\frac{1}{2}-3$	ft.	XXX XXX XXX XXX	1.50 2.00 3.00 4.00
YEWS (TAXUS) are particularly valuable for planting in shady places and cities where the smoky atmosphere is injurious to other evergreens. Their bright red fruits among the dark green leaves make them the most interesting of all evergreens in late summer. They stand much trimming, are long lived, and free from pests. Plant in rich soil, well mixed with peat or humus.				
—cuspidata capitata, Upright Japanese Yew. 8-12 ft Broadly pyramidal. May be sheared into any form.		ft.	XX	2.50 4.50 6.00 7.00
—cuspidata intermedia, Intermedia Yew. 3-5 ft	15-18 18-24			3.00 4.50
—cuspidata media hicksi, Hick's Yew. 8-10 ft.  A very narrow, columnar, compact form with very darkest green foliage. The best columnar tree for a shady place. Endures considerable heat.	2-2½ 2½-3 3-3½ 3½-4	ft. ft.	XX XX	4.00 5.50 6.50 7.50
—cuspidata media hatfieldi, Hatfield Yew. 8 ft Vigorous, upright grower, compact and very dark green.		in. ft.	XX XX	3.00 4.00 5.00 6.50
—cuspidata nana, Dwarf Japanese Yew. 5 ft	15-18 18-24	in.	XX XX	3.50 5.00

—cuspidata spreading, Spreading J	apanese Yew. 4-6 ft18-24 in. XX	Each 4.50
A spreading, irregular, bush for very low by a little shearing.		5.50 6.50

## DECIDUOUS TREES AND SHRUBS

Trees and shrubs are included under one heading because many plants may be either, according to the training given them.

The figures in feet given after the names indicate the size attained at maturity under average conditions, and will vary considerably according to the environment.

Specific requirements such as acid or limestone soil, moist or dry soil, shade or full exposure, winter protection, etc. are noted if important for successfully growing the plant.

Large heavy specimens of several kinds are available and will be quoted on application.

ALMONDS—Flowering. See Prunus glandulosa.	Size	Each	Per 10
AMELANCHIER, sp. Dwarf Juneberry, Service-berry, Shadblow. 6-10 ft.  A mass of white flowers in early spring, followed by great crops of purplish, edible, sweet fruit in June. Attracts birds. Deserves much wider use.	18-24 in. 2- 3 ft.	\$0.50 .60	\$ 4.50 5.50
—Tree Juneberry.  An upright form which may be trained into a tree 30 feet high.		.75 1.00	
ARONIA arbutifolia brilliantissima. 6-8 ft Especially desirable for its very brilliant red fruit and its deep red foliage in the fall.		.75 .90	
ASH—American. 50-60 ft.  A quite rapid growing, splendid shade tree. Thrives almost anywhere. Not easily broken by storms nor likely to be injured by pests.	5- 6 ft.	.50 .75 1.00 1.25	6.50 9.00
AZALEAS are "tops" among the flowering shrubs and are not as difficult to grow as most people believe. A location protected from dry winds such as the east side of a building, partial shade, plenty of peat, and not too much lime in the soil will satisfy the hardy kinds listed. Most kinds grown elsewhere have no value here.			
—mollis, Chinese Azalea. 3-4 ft.  Large flowers before the leaves, pale yellow to red, mostly orange shades. Mildly acid soil. All budded for blooming.	15-18 in.	1.50 2.00 3.00	B & B B & B B & B

—mucronulatum, Mongolian Azalea. 6 ft	Size 2-2½ ft.		Per 10 B & B
—poukhanensis, Korean Azalea. 3-4 ft	18-24 in.	3.50	B & B
—schlippenbachi, Royal Azalea.  Large pale rose-pink. Vigorous, tall. Needs some shade; ordinary soil with some peat seems to suit it. Tolerates considerable lime.	2-2½ ft. 2½-3 ft.		B & B B & B
—yodogawa. 3-4 ft Double, pinkish lavender, early. Acid soil.	18-24 in.	3.50	B & B
<b>BARBERRY</b> —For the regular type of Japanese Barberry and Truehedge or Columnberry see Hedge Plants. Page 20.			
—mentorensis, Evergreen Barberry. (U. S. Plant Patent 99). ——————————————————————————————————	18-24 in.	.65	5.00
change to coppery bronze and are retained until the new green leaves appear. A splendid founda- tion shrub.			
—Red Leaved. 3-6 ft.  A form with purplish red foliage all summer if in the sun. In shade it is green.	15-18 in.	.40	3.00
BIRCH—C. L. Weeping. 30-60 ft		2.25 2.75	
—Canoe, Betula papyrifera.  Tall, upright, white bark.	12-15 in.	3.00	
<b>BLADDERNUT, Staphylea trifolia.</b> 8-10 ft	3- 4 ft. 4- 5 ft.	.60 .75	
BUCKEYE, Aesculus glabra. 50 ft.  Upright panicles of greenish yellow flowers.  Large shining, brown seeds.	6- 8 ft.	2.25	
BUCKTHORN, Rhamnus frangula. 8-12 ft	2_ 1 ft	.50	
Glossy green leaves. Flowers continuously		.75	6.50
throughout the summer; bears green, red and black berries. Splendid for screens in difficult place.	5- 6 ft.	1.00	
BUTTERFLY BUSH, Charming.	No 1	.60	
Long sprays of lavender-pink in late summer and fall. New. Protect well.		.50	

	Size	Each ]	Per 10
-Fortune. (Plant Patent No. 206).  Pure lilac color with brilliant orange eye. Very	No. 1	.75	
long sprays, excellent for cutting. Protect well.			
-Ile de France. Rich, reddish purple flowers. Protect well.	No. 1	.50	4.50
BUTTON BUSH, Cephalanthus occidentalis. 5-6 ft. Greenish-white globular flowers in July and August. Likes moist, rich soil.	2- 3 ft.	.50	*********
CARAGANA arborescens, Siberian Pea-Tree. 10-15			
ft.	18-24 in.	.30	2.00
Green bark. Soft pea-green foliage very early. Bright yellow flowers in late May. Thrives in driest soil in sun, also endures shade.	2- 3 ft. 3- 4 ft.	.40 .50	3.00 4.50
CATALPA bungei, Umbrella catalpa. 8-10 ft	5- 6 ft.	2.00	
CORNUS alba siberica. 8-10 ft.  Erect bright red branches, small white flowers in May, and porcelain-blue berries. Colorful in fall and winter.	3- 4 ft.	.50	4.50
-alternifolia, Pagoda Dogwood. 15-20 ft	2- 3 ft.	.60	
Horizontal branches in tiers easily trained into	3- 4 ft.	.75	
a tree pagoda form. Blue fruit eagerly eaten by birds. Very picturesque.	4- 5 ft.	.90	
—elegantissima, Variegated Dogwood. 6-8 ft Leaves edged with creamy-white. Bright red bark in winter.	2- 3 ft.	.90	*******
-paniculata, Gray Dogwood. 10-12 ft.	18-24 in.	.40	3.50
White flowers in May. White fruit in September.	2- 3 ft.	.50	4.50
-stolonifera lutea, Yellow-twigged Dogwood. 8-10			
ft	2- 3 ft.	.40	3.50
COTONEASTER acutifolia, Quinceberry. 5-8 ft	18-24 in.	.45	4.00
Small pinkish flowers, black berries. Smooth	2- 3 ft.	.60	5.00
glossy, dark green leaves with brilliant crimson fall coloring. Splendid for sheared hedges.	3- 4 ft.	.70	6.00
—divaricata, Spreading Cotoneaster. 3-5 ft	2- 3 ft.	.90	8.00
—integerrima, European Cotoneaster. 5-6 ft	2- 3 ft.	.90	

CRAB, Malus. Small trees, flowering in May. They easily take the place of Japanese Cherries which are not dependable here. The crabs are hardy, afford a good range of colors and the blossoms last longer than flowering plum or cherry blossoms.

—Bechtel Double Flowering. 10-15 ft	Size 3- 4 ft. 4- 5 ft.	Each 1.50 2.00	
—Carmine, Malus atrosanquinea. 10-15 ft	4- 5 ft.	1.25	*********
—Dolga, Hansen's Red Crab. 15-18 ft		.75 .90 1.00	8.00
—Eley Flowering Crab, M. eleyi. 25-30 ft		.90 1.25	
—Flame.  A hardy Minnesota variety which produces a dense mass of white slightly shaded pink flowers and great loads of small brilliantly colored fruits of fine quality.	5- 6 ft.	1.00	
—Hoppa, Hansen's Red Flowering Crab. 20-25 ft A rapid upright growing kind with large red flowers, fruit, new growth, and wood. Very fine.	4- 5 ft.	.90 1.25 1.50	
—Red Flesh. Originated by Prof. Hansen. Large red flowers. This we consider one of the most beautiful of all the crabs with colored flowers. Fruit about the size of Whitney, a solid brilliant red, with red flesh, unexcelled for jelly and sauce.	3- 4 ft. 4- 5 ft. 5- 6 ft.	1.00 1.25 1.50	
—Sargent, Malus sargenti. 6-8 ft.  Low-growing with wide, horizontal branches. Flowers white, fruit bright red like cherries, hanging into winter. One of the best kinds.	3- 4 ft. 4- 5 ft.	1.50 2.00	14.00
—Scheidecker.  Red buds opening double pink. Yellow fruit.	4- 5 ft.	1.25	
—Soulard.  A hybrid of the wild crab with large beautiful pink, very fragrant flowers and yellow apples.		1.00 1.25	********
—Spectabilis, Showy Crab. 12-15 ft Large, fragrant, bright pink flowers, semi- double. Small yellow fruit. Very prolific.	3- 4 ft. 4- 5 ft.	1.25 1.50	
—Zumi.  A dense growing thorny Asiatic Crab excellent for game protection thickets. Buds bright pink, opening near white. Fruit small, red or yellow, liked best of all by birds.		.75 .90	6.50 8.00

CRANBERRY, Highbush. See Viburnum opulis.

	Size	Each	Per 10
CURRANTS, Alpine.	.15-18 in	.35	
Dwarf compact, with small dark green leaves.	18-24 in	.60	
Excellent hedge for shady places.	10-24 111.	.00	5.00
-Yellow flowering, Ribes odoratum. 4-6 ft.	9 9 44	.50	4 50
Extremely fragrant, blooming early in May.	2- 0 11.	.00	4.50
DEUTZIA, lemoine. 4-5 ft.	18_94 in	.50	
Semi-dwarf, single white flowers in clusters.	10-24 111.	.50	********
-gracilis, Slender Deutzia. 2½-3 ft.	15-18 in	.50	4.50
A profusion of snow-white flowers in May. Endures some shade.	10 10 111.	.50	1.00
ELDER—Golden. 10-12 ft.	2- 3 ft	.50	
Like common elder but with outstanding yellow	3_ 4 ft	.60	
foliage.	5- <del>4</del> 1t.	.00	
ENKIANTHUS campanulatus, Red vein Enkianthus.			
10-15 ft.	. 4- 5 ft.	4.00	B & B
Clusters of small bell-shaped yellowish flowers	5- 6 ft.	5.00	B & B
veined, rosy-red in May. Brilliant scarlet fall coloring, likes acid soil.			
ELM—American white. 80-100 ft.	1 5 ft	20	2.50
One of the best of all shade trees. Thrives in	<del>1-</del> J 16.	.30 .60	5.00
almost all situations. Large sizes up to 3 in. \$1.75	8-10 It.	1.25	
per in. in diameter; from 3 to 5 in. at \$2.00 per. in.	10-12 It.	1.50	13.00
Moline. 80-100 ft.	6- 8 ft.	1.25	
A very vigorous upright variety of the above	8-10 ft.	1.50	
with large, closely set leaves. Budded and all one type. Large sizes up to 5 in. \$2.00 per in. in diameter.	2 20 20		
in diameter.			
-Chinese, Ulmus pumila. 40-50 ft.	4- 5 ft.	.50	4.00
Extremely rapid and dense growing Suitable	5- 6 ft.	.75	6.50
Extremely rapid and dense growing. Suitable for dry soils. Twigs fine and much bent. Leaves	6- 8 ft.	1.00	9.00
small and remain green late. Cut back heavily	8-10 ft.	1.25	
in transplanting.	0 10 10	1.20	11.00
EUONYMUS alatus, Winged Wahoo. 6-10 ft.	2- 3 ft.	1.00	9.00
Broad, corky wings on the twigs, red berries and brilliant fall foliage make this attractive at all seasons. Unexcelled for specimens.	2 0 20		
otronumnum Proming Proch 9 10 ft	2_ 4 ft	.80	
—atropurpurea, Burning Bush. 8-10 ft Large, pendent, brilliant crimson fruit in fall.	4- 5 ft	1.00	
Native here.	<b>4-</b> 0 16.	1.00	********
EXOCHORDIA grandiflora, Pearl Bush. 6-8 ft	3- 4 ft.	.75	
Pearl-like buds which open pure white in April and May.			
FORSYTHIA intermedia, Yellow Bells. 6-8 ft	2- 3 ft.	.50	4.00
nardy. Branches may be forced early moors.			

	~:		
—ovata. 3-5 ft.	Size		Per 10
The hardiest and earliest. New shrub. Flowers medium sized, light yellow.	3- 4 ft.	.75 1.00	6.50 9.00
GINKGO, Maidenhair Tree.	9 9 ft	.75	
A rare and very old tree. Free from diseases and insects.	5- 6 ft.	2.50	
HACKBERRY, Celtis occidentalis. 50-60 ft	5- 6 ft.	1.25	
	6- 8 ft.	1.75	********
HALESIA monticola, Mountain Silverbell	6-8 ft.	2.50	
	8-10 ft.	3.00	
HONEYSUCKLE, Bella albida. 10-12 ft.	2- 3 ft.	.40	3.50
Very hardy and thrifty. White flowers red fruit.	3- 4 ft. 4- 5 ft.	.50 .60	4.50 5.50
-Chrysantha, Creamy Bell Honeysuckle. 8 ft	2- 3 ft.	.40	3.50
Yellowish flowers. A splendid hedge plant.	3- 4 ft.	.50	4.50
-korolkowi floribunda. 8-10 ft.	2- 3 ft.	.90	
Blue-green leaves and pink flowers. The most beautiful honeysuckle bush.	3- 4 ft.	1.00	
Morrow's. 6-8 ft.	3- 4 ft.	.50	4.50
White flowers, red berries. Compact, spreading, excellent for hedges. Trims well.		.60	5.50
-Tartarian. 8-10 ft.	2- 3 ft.	.40	3.50
Upright. Pinkish flowers, red berries	3- 4 ft.	.50	4.50
-Siberica. 8-10 ft.	2- 3 ft.	.40	3.50
A variety of the above with deeper pink flowers and bright red fruit.	3- 4 ft.	.50	4.50
-Zabelii. 10-12 ft.	3- 4 ft	.60	5.00
Upright growing. Rosy red flowers and red fruit.		.70	6.00
HORSE CHESTNUT, Aesculus Hipposcastanum. 40-			
60 ft.	2- 3 ft.	1.50	
Large white red tinged flowers. Beautiful com-	3- 4 ft.	2.00	
pound leaves with delicate yellow fall coloring.			
HYDRANGEA, arborescens grandiflora, Hills of Snow. 4-5 ft.  Large clusters of white flowers in July. Good for shady places.	18-24 in.	.60	5.00
-paniculata grandiflora, Hardy Hydrangea, Peegee			
Hydrangea. 8-9 ft.  Large panicles of white in August, changing to pink and bronzy green in autumn.	3- 4 ft.	.75	6.50
—Tree form of the above.	3- 4 ft.	1.50	

HYPERICUM aureum, Golden St. Johnswort. 3-4	Size	Each	Per 10
ft	10 94 in	EO	4.00
Blue-green foliage. Bright yellow flowers in July-August. A fine dwarf shrub.	2-2½ ft.	.50 .75	4.00 6.50
ILEX verticillata, Winterberry. 6-8 ft.  Red berries till mid-winter. Likes wet, acid soil and some shade. One of the best Christmas berries.	<b>2-</b> 3 ft.	.75	
KENTUCKY COFFEE TREE Gymnocladus dioica.	5_ 6 ft	2.00	
Immense compound leaves, 2 or 3 feet long, coarse, rugged branches and rough bark.	6- 8 ft.	2.50	
KOLKWITZIA amabilis, Chinese Beautybush. 6-			
10 ft.  Bell-shaped pink flowers with orange centers in great profusion in June. Rapid growing. One of the best new hardy shrubs.	2- 3 ft.	.75	•••••
LILAC SPECIES and HYBRIDS: Botanically they are Syringa.			
C Cli with (Partie To the	0 0 0		4 = 4
—S. Chinensis (Persian or Rothmagensis). 8-10 ft. Violet flowers, slender arching branches. Very profuse blooming. A splendid shrub.	2- 3 ft. 3- 4 ft.	.50 .60	4.50 5.50
Chinanaia alba (Pathmaganaia alba)	10 9/ in	.50	
—Chinensis alba (Rothmagensis alba).  Resembles above, except is almost white, and	9 9 44	.60	
the twigs are very slender.	2- 5 1t. 3- 4 ft.	.75	
-Chinensis mertensis. A pinkish form of chinensis.	3- 4 ft.	.75	
—Hiawatha.	9_ 3 ft	1.25	
A hybrid with very large leaves and clusters of rose colored flowers in June.		1.50	
Dilitata	9 9 44	1.25	
<ul> <li>Dilitata.         Blooms earliest, and before leaves open, pale lilac color. Unlike other lilacs, the leaves color beautifully in the fall.     </li> </ul>	3- 4 ft.	1.50	
—Henryi Lutece. 10-12 ft.  Large panicles of violet flowers in great profusion later than most other lilacs.	3- 4 ft.	1.25	
—S. japonica, Japanese Tree Lilac. 15-20 ft	3- 4 ft.	1.00	********
— <b>Mirandi.</b> One of the Preston Hybrids. Immense flower clusters appearing pure pink from a distance. Very vigorous.	18-24 in.	1.00	********
—S. villosa, Late Lilac. 7-8 ft.  Pale pinkish-lilac. June. Scented. A compact, upright grower.	2- 3 ft. 3- 4 ft.	.75 1.00	

	Size		Per 10
—S. wolfi.  Small dark reddish-purple flowers in large clusters. Very profuse bloomer.		1.00 1.25	********
"FRENCH LILACS." Choice named varieties of Syringa vulgaris. Own roots. Very superior to common lilacs. Several other varieties are available but in quantities too limited to list or sizes too small till the fall of 1941.			
—Adelaide Dunbar.  Double. Dark reddish-purple buds opening somewhat lighter.	18-24 in.	1.00	********
—Aline Mocqueris. Single, dark reddish-purple, narrow pointed clusters.	. 2- 3 ft.	1.00	
—Dr. Von Regal. Single, rosy-mauve.	2- 3 ft. 3- 4 ft.	1.00 1.25	9.00 11.00
-Edith Cavelle.  Double, cream colored buds opening milk white. Extra large fine flowers.	. 2- 3 ft.	1.25	11.00
—Jean Bart.  Double, rose-violet, carmine buds.	2- 3 ft. 3- 4 ft.	1.00 1.25	9.00 11.00
—Kate Harlan. Single. Buds are greenish and flowers white with a tinge of green.	. 2- 3 ft.	1.00	
—Louis Henry.  Double, rosy mauve.	2- 3 ft. 3- 4 ft.	1.00 1.25	
—Ludwig Spaeth.  Single, very dark reddish-purple. Splendid. It always attracts attention.	2- 3 ft. 3- 4 ft.	1.00 1.25	
—Mme. Anthoine Buchner.  Double, tall, late. Soft rosy-mauve.	2- 3 ft. 3- 4 ft.	1.25 1.50	
—Mme. Casimir Perier.  Double, very free blooming. Large, creamywhite.	2- 3 ft.	1.00	
—Montaigne.  Double pinkish-mauve, large clusters.	. 3- 4 ft.	1.00	
—Pres. Fallieres.  Double, pale lavender, very large florets and clusters. A very fine kind.	. 2- 3 ft. 3- 4 ft.	1.25 1.50	
—Pres. Poincare.  Double. Wine colored buds opening violet. Very large clusters. Splendid kind.		1.00 1.25	
—Pres. Viger.  Double, large, branched, rather loose bunches of light purple.	. 2- 3 ft.	1.00	

	Size	Each	Per 10
—Prince de Beauvau.  Double, bluish-lilac.	2- 3 ft.	1.00	********
-Royal Blue. Single, blue, profuse bloomer.	2- 3 ft. 3- 4 ft.	1.00 1.25	
—Ruhm Von Horstenstein.  Single. Large reddish-purple on long narrow trusses. Very prolific.	2- 3 ft.	1.00	*****
—Senateur Volland.  Double. Pink buds opening light lilac touched with bright pink. Very dainty.	2- 3 ft. 3- 4 ft.	1.00 1.25	
LINDEN—American, Tilia americana. 60-80 ft	5- 6 ft. 6- 8 ft. 8-10 ft.	1.25 1.60 2.00	15.00
LOCUST—Honey. 50-60 ft.  Beautiful pinnate, lacey foliage. Very hardy, strong tree.	4- 5 ft.	.90	
—Thornless. 50-60 ft.  A vigorous wide-spreading tree with fern-like foliage. Succeeds on any soil.	5- 6 ft. 6- 8 ft.	1.25 1.50	********
MAGNOLIA—Soulangeana. 15-18 ft.  Very large purplish-pink and white flowers before the leaves open. Plant in protected places.	3- 4 ft.	7.50	
MAPLE—Hard or Sugar. 50-75 ft.  One of the best shade trees; colors brilliantly in fall. Grows fairly rapidly in favorable locations.		1.50 2.00	********
—Norway, Acer platanoides. 50-60 ft.  A splendid, dense, round topped tree. Leaves remain green until late.	5- 6 ft. 6- 8 ft.	1.50 2.00	********
—Schwedler, Purple Norway. 40-50 ft. Large, bright purplish-red foliage in spring, turning bronzy green in summer and yellow in fall. Budded on common Norway Maple. One of the most colorful shade trees.	6- 7 ft. 6- 8 ft.	2.00 3.00	whips
—Red, Acer rubrum. 50-60 ft.  Red flowers in spring and most brilliant crimson and orange fall coloring. Prefers moist acid soil.	6- 7 ft.	2.00	
—Soft. 60 ft.  A well known very rapid growing native shade tree.	5- 6 ft.	.75	
—Tartarian, Acer ginnala. 8-15 ft.  Beautiful fine foliage, coloring most brilliant orange and scarlet in fall. A splendid substitute for the more tender Japanese Maples. Shears well and is very hardy. Fine for tall screens.	3- 4 ft. 4- 5 ft.	.75 1.25	

	C:	T71- 7	2 10
MOUNTAIN ASH—American. 20 ft	Size 5- 6 ft.	Each I 1.25	
Sometimes shrubby. Resembles the European,	. 0 0 10.	1.20	**********
but usually has larger clusters of brighter red fruits.			
-European. 20-30 ft.	5- 6 ft.	1.25	
Clusters of whitish flowers in spring are fol-	6-8 ft.	1.75	
lowed by orange or red fruits in fall. Growth upright.			
MULBERRY—Teas Weeping, grafted heads. 5-6 ft		4.00	
Russian. 20-30 ft.		.75	
Its fruit attracts birds from the more valuable fruits in June.	6- 8 ft.	1.25	
OAK-Burr, Quercus macrocarpa. 70-90 ft.	5- 6 ft.	2.00	
A sturdy, long lived, native tree with picturesque	6-8 ft.	3.00	
corky branches.	8-10 ft.	4.00	
-Pin, Quercus palustris. 70-90 ft.	5- 6 ft	2.00	
Grows rapidly in moist soil. Leaves are re-	6- 8 ft.	2.75	
tained late and color splendidly. Transplants	8-10 ft.	3.50	
easier than most oaks. Lower branches some-	10-12 ft.	4.50	
what drooping. Larger sizes \$2.50 per inch in diameter up to 5 inches.			
-Red, Quercus rubra. 60-80 ft.	4- 5 ft	1.75	
Rapid growing. Red and green autumn colors.	5- 6 ft.	2.50	
	6- 8 ft.	3.00	
OLIVE—Russian. 15-20 ft.	5- 6 ft	1.00	
Leaves and young growth covered with silvery		1.50	
scales. Fragrant yellow flowers.	0 0 10	1.00	*********
PHELLODENDRON-Sachalinense, Sakhalin Cork-			
tree. 30-40 ft.	4- 5 ft.	.50	
A quick growing, handsome, spreading, hardy			
tree, free from pests. Leaves are large and dark green.			
PHILADELPHUS, Mockorange, Syringa.			
-Avalanche. 4-5 ft.	2- 3 ft.	.50	
Slender arching twigs with small flowers in	3- 4 ft.	.60	
great profusion.			
-Coronarius, Common Mockorange. 8-10 ft.	3- 4 ft.	.50	
Single white, fragrant flowers in great abundance in May-June.	4- 5 ft.	.60	
-virginalis, Virginal Mockorange. 6-8 ft.	2- 3 ft.	.60	
Large semi-double flowers somewhat continuously.	2 0 10.	.00	
PHYSOCAPPIIS applifalia appea Colden Nine			
PHYSOCARPUS opulifolia aurea, Golden Ninebark. 9-10 ft.	4- 5 ft	.75	
White flowers in spring. New growth golden.	1 0 10.	.10	********

1 1945			
	Size	Each I	Per 10
POPLAR-Bolleana, Silver leaved Poplar. 50 ft	5- 6 ft.	1.00	
A rapid growing, very columnar tree with leaves			
silvery underneath, and grayish-green bark.			
-Lombardy. 50-70 ft.	5 E ft	E0	4.00
Strictly upright in habit. Branched to the	6- 8 ft	.50 .60	4.00 5.00
ground. A most useful tree for accents and tall	8-10 ft.	.90	7.50
screens.	10-12 ft.	1.25	10.00
			20.00
PRUNUS—cistena, Hansen's Purple Leaved Plum.			
6-8 ft.	3- 4 ft.	.75	7.00
Bright reddish-purple foliage throughout the	4- 5 ft.	1.00	9.00
season. Purplish-pink blossoms. The best red- leaved shrub or small tree.	5- 6 It.	1.25	11.00
leaved silrub of siliali tree.			
-glandulosa, Pink Flowering Almond. 4-6 ft	2- 3 ft.	7.5	
Large, double, pink flowers before the leaves.	3- 4 ft.	1.00	
		2.00	*********
-maritima, Beach Plum. 4-6 ft.	4- 5 ft.	1.00	
Compact, dark green foliage, white flowers.			
Description Almost O 2 ft	15 10 :		
—nana, Dwarf Siberian Almond. 2- 3 ft.	15-18 in.	.50	
Single pink flowers very early. Endures extreme cold and drought. Splendid little shrub, known	18-24 in.	.60	
to but few.			
to but lew.			
-padus, May Day Tree. 30-40 ft.	4- 5 ft.	.75	
A wide-spreading tree, earliest to leaf out in	5- 6 ft.	1.00	
spring. Racemes of white fragrant flowers May	6- 8 ft.	1.25	
1st. Should be planted as early as possible.			
-tomentosa, Nanking Cherry. 6-10 ft.		.50	
A splendid shrub or small tree producing a mass	3- 4 It.	.75	
of pale pink flowers very early. Fruit edible,	4- 5 11.	1.00	
resembling the common cherry. Earlier and hardier. Attractive rugose foliage.			
natulet. Attractive rugose forlage.			
-triloba, Double Flowering Plum. 7-8 ft.	3- 4 ft.	1.00	
Clear pink, double rose-like flowers in April-	4- 5 ft.	1.25	
May. Much admired by everyone.	5- 6 ft.	1.50	
PURPLE FRINGE, Smoke Tree, Rhus cotinus. 10-15	10 24 in	.90	
ft. Plumy masses of purplish flower stems in August.	10-24 111.	.50	
rumy masses of purphish flower stems in August.			
QUINCE-Japanese Flowering, Cydonia japonica.			
4-5 ft.		.50	
Scarlet flowers before the glossy green leaves.	2- 3 ft.	.60	
RED BUD, Judas Tree, Cercis canadensis. 18 ft	4- 5 ft.	1.25	
Rose pink flowers in advance of the leaves. Likes			
rich soil. Somewhat tender when small.			
RHODOTYPOS kerriodies, Jetbead, White Kerria.	0 0 64	.50	
3-6 ft.	2- 3 It.	.75	
Single white flowers. Black shining seeds. En-	5- 4 It.	.10	
dures considerable shade.			

	Size	Each Per 10
ROSE ACACIA, Robinia hispida. 5-6 ft Large bunches, bright rose colored pea-like flowers on spreading, bristly branches.	3- 4 ft.	.75
SNOWBALL—See Viburnum opulis sterilis.		
SORBARIA arborea. 10-12 ft  Beautiful foliage; immense arching panicles of white flowers in June-September.	3- 4 ft.	1.00
—sorbifolia, Ash Leaved Spirea. 2-4 ft	3- 4 ft.	.60
SPIREA—Anthony Waterer. 2-3 ft. Very dwarf and compact, pink flowers all summer.	18-24 in.	.50
-froebeli, S. Bumaldi froebeli, Froebel's Spirea.	10.04	40 000
3-4 ft.  Resembles Anthony Waterer. More vigorous.  Purplish-red fall foliage.	18-24 1n.	.40 3.00
—thunbergi, Thunberg Spirea. 5-7 ft. Slender, arching branches and fine, feathery light green foliage. White.	2- 3 ft.	.60
—vanhouttei, Vanhoutte Spirea. 5-7 ft.  Commonly called Bridal Wreath. White flowers in May. Graceful habit. Thrives almost anywhere.	2- 3 ft. 3- 4 ft.	.30 2.00 .40 3.00
SUMAC—Aromatic, Rhus canadensis. 4-5 ft Fragrant Sumac. Beautiful aromatic leaves. Coral red fruits in June. Endures drought. Very brilliant fall coloring.		.75 7.00 1.00 9.00
—Cut Leaved Staghorn, Rhus typhina lacinata Twigs velvety; foliage very finely cut. Usually quite irregular, but may be trained into a tree 16 feet.	3- 4 ft.	.60
A tall spreading tree with smooth light colored bark. Rapid growing, excellent shade.	8-10 ft. 10-12 ft.	2.00 2.50
SYMPHORICARPOS vulgaris, Red Coralberry, Indian Currant. 3-5 ft.  Endures densest shade and dry soil. Covered with small red berries in early winter.	3- 4 ft.	.50
—White Snowberry, Symphoricarpos racemosus. 3-5 ft. Endures much shade. Large white berries in fall. Needs moisture.	2- 3 ft. 3-3½ ft.	.40 3.50 .50 4.50
TAMARIX pentanda, Blue-Green Tamarix. 4-8 ft. Fine feathery blue-green foliage. Racemes of delicate pink flowers.	2- 3 ft.	.50 4.00

THORN, Crataegus, Hawthorn.	Size	Each	Per 10
Titotia, Cratacgus, Hawthorn.			
-arnoldi. 18-20 ft.	6- 8 ft	3.50	
One of the first to bloom and to ripen its large crimson fruit.	8-10 ft.	4.50	
-coccinea, Thicket Hawthorn. 15-20 ft.	1 5 ft	1.50	
White flowers in May-June, large dull red fruit	5- 6 ft	2.00	
in autumn. Spines long and curved flowers		3.00	
large. Very hardy.	0 0 10.	0.00	
-coccinoides. 18-20 ft.	3- 4 ft.	1.25	
A beautiful little tree with showy flowers and	4- 5 ft.	1.50	
lustrous, dark crimson fruit in October.		2.00	
-Cordata, Washington Hawthorn, 30 ft.	4- 5 ft	1.50	
A very choice kind. Bright red fruit is long	5- 6 ft.	2.00	
retained. Very brilliant fall coloring. Many	6- 8 ft.	3.00	
consider this the best of all Hawthorns.			
-prunifolia, Plumleaf Hawthorn. 20-30 ft.	5- 6 ft	2.00	
Pinkish flowers, and red fruit.	5- 0 16.	2.00	*******
4	0 4 64	1.05	
-tomentosa, Red Hawthorn. 16-20 ft.		1.25	
Wide spreading. Red fruit.	4- 5 ft.	1.50	
VIBURNUM—carlesi, Fragrant V., Carles V. 4-6 ft.	15-18 in.	2.00	
Cymes of deep pink buds opening pink and fading to white. Very fragrant; April.		2.00	
-dentatum, Arrowwood. 5-6 ft.	2_ 3 ft	.60	5.00
Upright branches. Good foliage with gorgeous	3- 4 ft.	.75	6.50
fall coloring. Creamy-white flowers. Small blu-			0.00
ish-black berries attract birds in September.			
-lantana, Wayfaring Tree. 10-15 ft.	9 9 ft	.60	
Flowers in flat clusters in June-July. Fruit red		.75	
changing to black. Leaves almost evergreen.	5- ¥ 1t.	.10	
-lentago, Nannyberry, Sweet V. Up to 30 ft.	9_ 2 ft	.75	
Good foliage with brilliant fall coloring. Large		.90	
cymes of white flowers. Edible black berries. Likes moist soil.	5- 4 It.	.50	********
	0 0 11		
—opulis, High Bush Cranberry. 6-10 ft	. 2- 3 ft.	.75	
Bright scarlet berries in the fall.			
onulis storilis Snowhall 5.0 ft	2_ 2 ft	.75.	
—opulis sterilis, Snowball. 5-8 ft. An old well known shrub. Large balls of white flowers, producing no fruit or seed.	2- 3 It.	.19.	•
-Trilobum, American Highbush Cranberry.	18-24 in	.60	
		.75	
Three varieties have been named by the U. S. D. A. because of their superior fruit. Andrews,	3- 4 ft.	1.00	
Hahs, Wentworth. Either variety.		2.20	

WEIGELA—Eva Rathke, Red Flowering Weigela.	Size	Each I	Per 10
4-6 ft. Rich reddish-purple flowers June to August.	2- 3 ft.	.60	
—rosea, Pink Weigela. 4-6 ft.  Mass of pink in June. For protected places.	2- 3 ft.	.50	
WILLOW-Niobe Weeping. 40-50 ft.	4- 5 ft.	.50	4.00
Golden yellow bark, very long penulous branches.	6-8 ft.	1.25	10.00
Strikingly beautiful as a specimen or at the	8-10 ft.	1.50	
waterside. Very rapid grower.	10-12 ft.	2.00	
—Pussy Willow, Salix Caprea. 10-20 ft.  Its large silvery catkins produced very early in spring make this a most desirable tree. Easily grown, and good foliage.	5- 6 ft.	.60	
WITCH HAZEL, Hamamelis virginiana. 10-12 ft Interesting yellow flowers, October to December. Best in moist, half-shady places.		.60 .90	
—Hamamelis vernalis, Vernal Witch Hazel. 5-6 ft A kind blooming in March. Retains green leaves very late.	2- 3 ft.	1.00	

#### HEDGE PLANTS

See also Russian Mulberry and Chinese Elm under Forest Tree Seedlings, and Caragana, Honeysuckles, Spireas, Alpine Currants, and other shrubs in the previous section.

#### BARBERRY-Truehedge, Columnberry. (U. S. Plant Patent 110).

A very dense upright form of Japanese Barberry with glossy foliage growing much like boxwood. Makes an excellent formal hedge without much trimming.

18-24 in.	5 for \$1.60	25 for \$6.75	100 for \$24.00
2-2½ ft.	5 for \$1.90	25 for \$8.25	100 for \$30.00

—Japanese, Berberis thunbergi. Brilliant red berries and fall foliage. An unexcelled thorny hedge plant for trimmed or untrimmed hedges. Also good in the shrubbery border and foundation plantings.

	Size	Each	Per 10	Per 100
2 or 3 year branched.	12-15 in.	\$0.15	\$1.25	\$10.00
2 or 3 year branched.	15-18 in.	.20	1.75	15.00
Heavy 3-year.		.25	2.25	20.00
Heavy 3-year.		.35	3.00	
PRIVETS, Ligustrum.	Size	Each	Per 10	Per 100
-Amur River North. 12-14 ft.	18-24 in.	\$	\$1.00	\$ 7.00
Best for closely trimmed hedges and m satisfactory privet here.	ost 2- 3 ft.		1.25	10.00
—Regals, True Type. 5-6 ft	18-24 in.	.40	3.50	

# FOREST TREE SEEDLINGS

	Size	Per 100	Per 1000
BLACK LOCUST	18-24 in.	\$2.50	\$20.00
BLACK WALNUT	18-24 in.	4.00	36.00
	2- 3 ft.	5.00	45.00
CHINESE ELM	12-15 in.	2.00	15.00
	18-24 in.	2.50	20.00
	2- 3 ft.	3.00	25.00
GREEN ASH	18-24 in.	1.50	14.00
HARDY CATALPA	18-24 in.	1.50	14.00
HONEY LOCUST	18-24 in.	3.50	30.00
RUSSIAN MULBERRY	18-24 in.	3.00	25.00
SOFT MAPLE	12-18 in.	1.75	15.00

# CREEPERS AND CLIMBING VINES

Climbing roses are grouped under Roses, and very small kinds are among Perennials. The No. 1 grade are heavy two or three year plants.

AMPELOPSIS englemanni, Engleman Ivy	Each \$0.40	Per 10 \$3.00
—veitchii, Boston Ivy	.50	4.00
BITTERSWEET—American, Celastrus scandens	.50	4.50
—Oriental, Celastrus orbiculatus	.50	4.50
CLEMATIS. All like cool, well-drained, but moist, limestone soil with sun for the tops.		
-Henryi. Large single, white	.75	
—Jackmanni. Large, violet-purple	.75	
-Mad. Ed. Andre. Large velvety red	.75	
—paniculata, Japanese Clematis	.50	4.50
HONEYSUCKLE—Scarlet Trumpet, Lonicera sempervirens.  Almost evergreen. Long coral red flowers continuously. Excellent for cutting.	.40	3.50

—Halls, Lonicera japonica halliana.	Size No. 1	Each .30	Per 10 2.00
White changing to yellow, fragrant. July-September.			
MATRIMONY VINE, Lycium barbarumRed fruits.	No. 1	.40	3.50
TRUMPET VINE, Bignonia radicans.	No. 1	.40	3.50
WISTERIA—Lilac-purple.  Long bunches of purplish-blue flowers in May. Vigorous.	No. 1	.50	4.50

#### ROSES

All plants offered are two-year field-grown bushes. Cut back the top so only two or three of the stronger canes are left six inches long, and plant a little deeper than they grew, in well-drained rich soil. Sun until about 2 p.m. then shade, is the ideal exposure.

We have condensed our list of varieties so it includes only the old standbys and newer varieties which are reported most satisfactory in the "Proof of the Pudding," reports to the American Rose Society. These will give the most rose value per dollar spent for plants. Of the dozens of new varieties which are highly exploited each year by their introducers only a very few make good.

**QUANTITY PRICES.** Almost as much work and expense is used in filling and packing an order for one bush as several, so we can give cheaper rates on larger quantities except of the patented varieties.

#### CLIMBING ROSES

(All need winter protection in Central Iowa except as noted)

**AMERICAN PILLAR**, **50c:** Immense clusters; large, single; pink with a white eye. Very vigorous.

CRIMSON RAMBLER, 45c: Bright red, large clusters. Very popular climber.

CLIMBING AMERICAN BEAUTY, 50c: Large rich carmine, fragrant.

DR. VAN FLEET, 50c: Large, flesh pink, perfectly formed, pointed buds, long stems. Vigorous and hardy. One of the best.

DOROTHY PERKINS, 45c: Delicate pink, large clusters, vigorous and healthy.

EXCELSA, Red Dorothy Perkins, 45c: Lighter red than Crimson Rambler but more vigorous. Very heavy bloomer.

**HIAWATHA, 50c:** Large clusters of flowers, small, single, bright carmine with white eye. Vigorous and hardy.

- MAX GRAF, 60c: Large, single, shining pink, prostrate, creeping Rugosa hybrid. Splendid for banks and walls. Needs no covering.
- NEW DAWN (Patented), \$1.50: A vigorous, healthy, ever-blooming Dr. Van Fleet. A really continuous bloomer and very satisfactory.
- PAUL'S SCARLET, 50c: Large, bright, scarlet semi-double, in clusters.
- PRAIRIE QUEEN, 50c: Large globular bright pink. One of the hardiest.
- WHITE DOROTHY PERKINS, 45c: The hardiest pure white climbing rose.
- WICHURIAN, Memorial, 50c: Glossy foliage with very fragrant, creamy-white single flowers in clusters, prostrate grower.

# ROSE SPECIES AND HARDY ROSES (Varieties which need no winter protection in Central Iowa)

QUANTITY PRICES previously given apply here.

- AGNES, 50c: A tall, pale yellow Rugosa hybrid, blooming very freely in June.
- AMELIE GRAVEREAUX, 50c: Double fragrant, deep red.
- BLANC DOUBLE DE COUBERT, 50c: A low-growing Rugosa hybrid. Double. Snow white flowers, constantly produced.
- **BLANDA**, **40c**: 4 to 5 feet. Single pink, splendid shrub, bearing great loads of bright red hips.
- **GROOTENDORST**, **50c:** Hybrid of Rugosa x Baby Rambler; semi-double, small fringed, bright red roses in clusters produced continuously. Perfectly hardy, good hedge variety. Each flower resembles a carnation.
- GROOTENDORST PINK, 50c: A clear pink form of Grootendorst.
- **HARRISON YELLOW, 50c:** The old-fashioned double, clear yellow rose of early spring.
- HUGONIS, 50c: A compact upright bush. Single, pale yellow, very early.
- LUCIDA, 40c: Bright pink, 5 to 6 feet, shining foliage, bright red hips.
- RUGOSA, 50c: 5 to 7 feet. Single, large bright red; wrinkled, tough foliage, continuous bloomer, very large crimson hips.
- SETIGERA, 40c: The Prairie Rose. Clusters of large single pink flowers, and bright red hips. 6 to 8 feet arching canes.
- SWEET BRIAR, 50c: Pink flowers, fragrant foliage. Large bright orange hips carried through the winter. The genuine old Sweet Briar.
- VANGUARD, 50c: H. R. Double salmon pink. Vigorous grower.

#### **OTHER ROSES**

All this group should have winter protection Bank up with earth 8 inches or more and cover with any available material.

Hybrid Teas (marked H. T.) are the most constant bloomers and finest colors, but need best winter protection. They are usually well planted quite close together in narrow beds.

Hybrid Perpetuals (marked H. P.) are hardier and larger growing bushes, but not very continuous bloomers through the summer unless pruned heavily in spring.

Polyanthas, or Baby Ramblers are quite hardy but are better with protection and the most continuous blooming of all. Floribundas are especially suitable for massing and have considerably larger flowers than the older Polyanthas.

**QUANTITY PRICES** previously given apply here except to patented varieties.

AMERICAN BEAUTY, 50c: H. P. Deep pink, fragrant.

BABY RAMBLERS, (Polyanthas) and Floribundas.

Ellen Poulsen, 50c: Large, semi-double, bright rose pink, tall.

Gruss an Aachen, 50c: Fully double, light rose overlaid with yellow and almost as large as a Tea Rose.

Ideal, 50c: Very fine small dark red flowers in large clusters.

Improved Lafayette, Floribunda, 50c: Medium sized deep glowing red. Produced very profusely but not in large clusters.

Kirsten Poulsen, 50c: Bright scarlet clusters on long stems.

Permanent Wave (Patented), 75c: Large clusters, rather large flowers with wavy petals, rosy-pink with cerise edges.

**BETTY UPRICHARD, 50c:** H. T. Semi-double, large, ruffled. Outside of petals brilliant orange-carmine, inside soft salmon. Strong grower.

CONDESA DE SASTAGO, 60c: H. T. Distinctly two-toned. Coppery pink inside, golden on the reverse side.

CRIMSON GLORY (Patented), \$1.25: H. T. Large urn shaped buds producing perfectly formed flowers of intense vivid crimson.

DAINTY BESS, 50c: H. T. Single, rose colored, red stamens.

DUQUESA DE PANARANDA, 50c: H. T. Coppery apricot.

**EDITH NELLIE PERKINS, 50c:** H. T., pointed buds, rich orange outside, salmon pink inside. Very fragrant.

ETOILE DE HOLLANDE, 50c: H. T. Large, brilliant crimson-red. Finest red.

FEU JOS. LOOYMANS, 50c: H. T. Yellow, vivid apricot center, long, pointed buds.

FRAU KARL DRUSCHKI, 45c: H. P. The very purest white, continuous bloomer if pruned severely.

GEN. JACQUEMINOT, 45c: H. P. Scarlet-crimson, early and fragrant.

GEO. ARENDS (Pink Druschki), 45c: H. P. Excellent large, fragrant, pink.

GOLDEN DAWN, 50c: H. T. Clear lemon yellow, long pointed buds.

GRUSS AN TEPLITZ, 50c: H. T. Velvety crimson-scarlet, the most continuous bloomer. Hardy and vigorous. Not good for cutting, splendid in gardens.

IMPERIAL POTENTATE, 50c: H. T. Large, deep rose-pink.

KAISERINE AUGUSTE VIKTORIA, 50c: H. T. Creamy-white, very fragrant.

MAGNA CHARTA, 45c: H. P. Very large, rosy pink, tinted carmine.

MARGARET McGREDY, 50c: H. T. Brilliant red with golden base.

McGREDY'S IVORY, 50c: H. T. Very large long pointed buds developing into a large soft creamy-white. Moderately fragrant flower. Vigorous and healthy.

McGREDY'S SCARLET, 50c: H. T. Bright velvety scarlet.

MRS. SAM McGREDY, 50c: H. T. Coppery orange scarlet, flushed red.

MME. BUTTERFLY, 50c: H. T. A more brilliant Ophelia, a very continuous bloomer and most satisfactory as a garden rose.

PAUL NEYRON, 50c: H. T. Very largest, clear pink, fragrant, thornless.

**PRES. HOOVER, 50c:** H. T. A combination of cerise pink, scarlet, and yellow. A most vigorous grower and constant bloomer.

PRINCE CAMILLE DE ROHAN, 50c: H. P. Dark blood red, large, fragrant.

RADIANCE, 50c: H. T. Fine rosy pink, large stems, very productive, healthy and a most dependable garden variety.

RED RADIANCE, 50c: H. T. A glowing crimson form of Radiance.

TALISMAN, 50c: H. T. Orange-red buds, opening scarlet to gold and coppery red.

ULRICH BRUNNER, 45c: H. P. Large, fragrant, cherry red, vigorous.

#### **PEONIES**

Peony plants should be good for several decades so it is poor judgment to start with unnamed, poorly rated, or discarded varieties because they are very cheap when so many highly rated kinds can be had as cheaply as they are here quoted. Planting too deep, fertilizing too heavily, or cutting the tops too soon after flowering are probably causes of unsatisfactory results with peonies.

Peonies may be planted in any good garden soil, not too shaded, and the buds should not be covered more than two inches. Bone meal may be used about them and some complete commercial fertilizer applied with caution.

A stock of all the more expensive varieties is not kept in storage for late spring planting, so any orders for them which come too late for spring digging will be held till September, which is the next season for planting Peonies.

The figures after the price of each variety is its rating by the American Peony Society, and is made on a basis of 10.0 being perfect. The prices are for strong standard divisions of 3-5 eyes or buds. Other sizes furnished on this basis.

ADDIELANCHEA, 75c, 8.8: Creamy-white, base of petals yellow, late, fragrant.

ADOLPHE ROUSSEAU, 50c, 8.5: Dark lustrous red shaded maroon with yellow stamens. Tall, early, very large.

ALICE HARDING, \$2.50, 9.5: Delicate flesh pink. Very fine new kind.

ASA GRAY, 40c, 8.1: Mid-season, pale pink with carmine dots, fragrant.

AVALANCHE, 40c, 8.7: Late, very fine blush white. Extremely productive.

BALL O' COTTON, 75c, 8.8: Compact, white, mid-season.

BARONESS SCHROEDER, 50c, 9.0: Late, flesh color fading white, fragrant.

CHERRY HILL, 50c, 8.6: Very early, rich dark crimson, yellow stamens.

CHESTINE GOWDY, 50c, 8.4: Large, late, outer petals pink, collar creamywhite, center pink streaked crimson. Excellent fragrance.

CLAIRE DUBOIS, 50c, 8.7: Tall, late, fine pink with glossy reflex.

CORNELIA SHAYLOR, 75c, 9.1: Tall, late flesh-white, darker center, fragrant.

COURONNE D' OR, 40c, 8.1: Late, white with yellow stamens.

E. B. BROWNING, 75c, 9.2: Large, very late, white tinged pink at first.

ENCHANTERESSE, 50c, 8.9: Very late, creamy-white. Very large, faintly fragrant.

EUGENIE VERDIER, 50c, 8.6: Large, late outside rose pink, inside paler.

EUGENE VERDIER, 50c, 8.6: Rose-pink, tall, quite early.

FELIX CROUSSE, 40c, 8.4: Late mid-season, brilliant crimson.

FESTIVA MAXIMA, 40c, 9.3: Early, pure white, tipped carmine, fairly fragrant.

FRANCES WILLARD, 60c, 9.1: Perfectly formed, very large, white, mild fragrance.

FRANKIE CURTIS, \$2.00, 9.3: Delicate flesh, changing to white.

GEORGIANNA SHAYLOR, 60c, 8.9: Late mid-season, large, light rose pink, fragrant.

GRACE LOOMIS, \$1.50, 9.2: Late, white, faintly tinted lemon, mildly fragrant.

JUDGE BERRY, 60c, 8.6: Early light rose pink, slightly fragrant.

**KARL ROSENFIELD, 40c, 8.8:** Mid-season, rich blood red, thrifty and productive. One of the best red varieties regardless of price.

KATHERINE HAVEMEYER, \$1.00, 9.0: Mid-season, large, light rose pink, fragrant.

**KELWAY GLORIOUS, 75c, 9.8:** White very early, lasting and fragrant. No kind in the list is more vigorous or more regular in blooming.

KELWAY QUEEN, \$1.00, 8.8: Bright rose pink, late mid-season, rose scented.

LADY ALEXANDRA DUFF, 50c, 9.1: Mid-season, blush pink fading white with yellow stamens, fairly fragrant.

LA FEE, 75c, 9.2: Very largest, loose flowers of various shades of pink, fragrant.

LA FRANCE, 75c, 9.0: Clear light pink, tall, very large, very late, fragrant.

LA LORRAINE, \$1.00, 8.6: Large, mid-season, creamy-white tinted pink.

**LA ROSIERE**, **50c**, **8.3**: Semi-double, white with golden stamens. In huge clusters.

LA TULIPE, 40c, 7.5: Flesh pink fading white, red markings.

**LE CYGNE, \$2.00, 9.9:** Early, pure white; has the very highest rating of all. Fragrant.

LILLIAN GUMM, 75c, 8.8: Very large, deep rose pink, very fine fragrance.

LIVINGSTONE, 40c, 8.1: Late deep pink, fine cut flower. Strong, sweet fragrance.

LONGFELLOW, 50c, 9.0: The most brilliant red, mid-season.

LORA DEXHEIMER, 50c, 8.4: Intense crimson, early, some yellow stamens.

LOVELINESS, 60c, 8.8: Large, very late, pale flesh pink, mildly fragrant.

LUETTA PFEIFFER, 60c, 8.7: Very pale pink, tall, early fragrant.

MABEL FRANKLIN, 60c, 9.0: Light pink.

MARIE JAQUIN, 50c, 8.3: Semi-double, white with yellow stamens, fragrant.

MARTHA BULLOCH, 60c, 9.1: Tall, very large, rosy pink, rose-like fragrance.

MILTON HILL, 60c, 9.0: Late, light shell pink, faintly fragrant.

MME. DE VERNEVILLE, 40c, 7.9: Mid-season, white, very choice cut flower.

MME. ED DORIAT, \$1.00, 8.6: White, with few golden stamens.

MME. EMILE GALLE, 40c, 8.5: Late, pink shaded lilac-rose, rose fragrance.

MME. JULES DESSERT, 75c, 9.4: Large, creamy-white shaded buff and salmon.

MODESTE GUERIN, 40c, 7.8: Mid-season, deep lustrous pink, rose fragrance.

MONS. JULES ELIE, 40c, 9.2: Early very large glossy pink, extra fine, fragrant. One of the very best kinds.

MONS. MARTIN CAHUZAC, \$1.00, 8.8: Early, darkest deep maroon.

MT. BLANC, 75c, 8.6: Milk white, early mid-season, very large, fragrant.

MRS. A. M. BRAND, \$1.50, 9.6: Very large, late, clear white, fragrant.

MRS. ED HARDING, 75c, 9.3: Large, white, early, tall, stiff stems.

MYRTLE GENTRY, \$2.00, 9.1: Rosy white, salmon tinted, fragrant.

NINA SECOR, \$1.00, 9.0: Pure white with yellow glow.

OFFICINALIS RUBRA PLENA, 75c: Double. Very earliest bright crimson.

PHILIPPE RIVOIRE, \$1.25, 9.2: Late, bright crimson, best red, rose scented.

PHYLLIS KELWAY, 75c, 9.0: Semi-double, bright pink, very large, fragrant.

PRES. WILSON, 75c, 9.3: Late, large, soft shell pink, spicy fragrance.

PRIMEVERE, 75c, 8.6: Anemone. White gard petals, yellow center.

RAOUL DESSERT, 75c, 9.0: Late. Double, brilliant shell pink.

RICHARD CARVEL, 60c, 8.8: Early, very bright crimson, slightly fragrant.

ROSA BONHEUR, 75c, 9.0: Light violet-rose, flecked crimson, rose fragrance.

ROSETTE, 75c, 8.8: Large, early mid-season, clear light shell pink.

ROSE SHAYLOR, 75c, 9.1: Very large, double flesh-pink marked crimson midseason.

SARAH BERNHARDT, 50c, 9.0: Very large, rose pink, vigorous and productive.

SARAH K. THURLOW, \$1.25, 9.1: Very late, opens delicate pink becoming white.

SHAYLOR'S DREAM, 75c, 8.5: Double, mid-season, pale flesh pink, fragrant.

SOLANGE, 75c, 9.7: Mid-season, white shaded salmon.

THERESE, 60c, 9.8: Mid-season, delicate satiny pink.

TOURANGELLE, 50c, 9.4: Creamy-buff with salmon tints, mildly fragrant.

WALTER FAXSON, 60c, 9.3: Mid-season, distinct bright salmon rose, fragrant.

#### JAPANESE VARIETIES

AKALU, 75c, 8.1: Carmine red with center saffron yellow, striped carmine.

AMA-NO-SODE, \$2.00, 9.2: Rose pink, ruffled, center yellow, stamens rose.

AUREOLIN, 75c, 8.9: Anemone type, pink guard petals, center canary yellow. Fragrant.

FLAMBOYANT, 75c, 8.5: Brightest crimson. Tall, lustrous, dark, crinkled foliage.

FUYAJO, 60c, 9.2: Dark purplish crimson, center dark old rose tipped pale buff.

GYPSY, 75c, 8.0: Dark wine-red, center same bordered buff.

KING OF ENGLAND, 75c, 8.6: Large, tall, quite early, rich ruby-red with narrow golden center petals.

MIKADO, 60c, 8.6: Dark crimson with center crimson, tipped gold.

SNOW WHEEL, \$1.00, 8.3: Pure white throughout.

TAMATE-BOKU, \$4.00, 9.4: Lively China-pink, faintly fragrant.

TORPILLEUR, 75c, 8.0: Deep rose-red, center tipped cream, slightly fragrant.

#### SINGLE VARIETIES

f ANOMALE, 60c: Bright red. Very earliest, almost a month earlier than others of the taller peonies.

PRIDE OF LANGPORT, 75c, 8.9: Pale rose pink, large, mid-season.

#### IRIS

Bearded Iris may be planted anytime, but preferably not at blooming time, and should be planted shallow, on well-drained limestone soil. Fibrous rooted kinds like moisture and more acid soil, and are better moved in spring or September. A group of one kind or color is better than single plants of many colors.

QUANTITY RATES. Applicable to any one variety; not to assortments.

10c kinds, 20c for 3, \$0.45 for 10 and \$2.50 for 100 fans. 15c kinds, 30c for 3, .75 for 10 and 4.00 for 100 fans. 20c kinds, 40c for 3, .85 for 10 and 5.00 for 100 fans. 25c kinds, 50c for 3, 1.00 for 10 and 6.00 for 100 fans.

S. denotes standards, the upright part of the flower; and F., falls.

**EARLY BLOOMING DWARF IRIS**, fine for borders and rockeries, earliest in bloom.

Atroviolacea, 15c: Red-purple, very early.

Coerulea, 20c: Delicate, light sky-blue.

Cyanea, 10c: S., rich blue; F., dark satiny purple, 6 inches high.

Endymion, 20c: A fine deep wine-red.

Excelsa, 15c: S. and F., deep clear yellow, 8 inches.

Graminea, 20c: Rich red-purple; gold beard.

Marocain, 25c: A rich deep pansy-purple, very fine.

Prairie Gem, 10c: A very fine yellow. 5 inches.

Schneekuppe, 10c: S. and F., pure white, 6 to 10 inches.

#### GENERAL LIST OF TALL BEARDED IRIS:

Aphrodite, 15c: Tall, bright lilac-pink, fragrant.

Baldwin, 20c: Large, tall, deep violet self.

Buto, 20c: Large, deep blue-purple; large; rather short.

Chartier, 15c: Tall, clear white.

Coronation, 15c: Tall, deep yellow self.

Elizabeth Engleberg, 20c: A blend of pink and mauve.

Frieda Mohr, 25c: Large, deep pink-toned.

Germaine Perthuis, 20c: Rich violet-purple.

Gold Imperial, 10c: Chrome yellow.

Jacqueline Guillot, 15c: Large, lavender-violet.

Juniata, 10c: S., Arching; F., Flaring, clear blue throughout.

King Tut, 30c: Reddish brown,—outstanding.

Lent A. Williamson, 15c: S., lavender-violet; F., royal purple.

Mary Barnett, 20c: A splendid pale blue.

Midwest, 10c: S. and F., ruffled, dotted, and blushed rose on white ground.

Midgard, 20c Pink and yellow blend, ruffled.

Mildred Presby, 20c: S., creamy-white; F., rose-purple.

Mme. Chereau, 10c: S. and F., white frilled pale blue, tall and late.

Morning Splendor, 15c: S., rich red-violet; F., darker. One of the best.

Ophelia, 25c: Heliotrope, bronze, and yellow blended.

Pallida Dalmatica, 10c: S. and F., light lavender-violet.

Prairie Gold, 15c: Choice, yellow, medium height.

Princess Beatrice, 15c: Light lavender self. Tall.

Ramses, 30c: Apricot, pink, and blue blended.

Robert Wallace, 20c: S., deep violet; F., black-violet.

Snow White, 20c: White.

Troostringer, 15c: Apple blossom pink throughout.

True Charm, 15c: White delicately suffused lavender.

Violacea Grandiflora, 10c: Violet self.

Wedgewood, 20c: Blue self, white beard.

MISCELLANEOUS IRIS SPECIES: More permanent, and less susceptible to disease than the tall bearded Iris. They like a moist soil without lime and with plenty of peat or humus.

Arenaria, Goldbeard Iris, 25c: 6 to 8 in., narrow leaves golden yellow flowers. Likes sandy drier soil.

Crested Iris, I. cristata, 25c: Creeping, 6 in., lavender flowers marked white and orange. For cool, acid soil in semi-shade.

Dorothea K. Williamson, 15c: 30 in. Gorgeous, velvety, vivid red-purple.

Foliosa, 20c: Large, broad, clear violet-blue flowers down among the leaves. Likes deep, rich soil, and part shade.

Mrs. A. W. Tait (Longipetala superba), 20c: 3-4 ft. Long narrow petals, soft porcelain blue. Very tall, stiff, sword-like foliage.

Vesper Iris, I. dichotoma, 20c: 3-4 ft., much branched stems, light lavender flowers for four weeks in August and September. Flowers open about 3:30 each afternoon.

Water Iris, I. pseudacorus, 20c: 2-3 ft. Bright yellow. For waterside.

**SIBERIAN IRIS:** Should be much more used. Very superior to Bearded Iris as garden plants. Dense clumps of narrow upright foliage remaining bright till fall. Very hardy.

**Blue Charm, 25c:** Very large blue variety much superior to the old blue kinds. An excellent kind.

Emperor, 20c: 3-4 ft. Large, deep violet-blue, broad circular falls. One of the very best of the group.

**Geo. Wallace, 20c:** 3 ft. S., azure blue; F., darker veined white, stiff strictly upright stems and narrow foliage. Fine at pool side.

Perry's Blue, 20c: 3 ft. A splendid pale blue.

Snow Queen, 20c: 30 in. Ivory white with yellowish throat. Fine for cutting.

True Blue (Fryer's), 20c: 18 in. A clear blue color.

JAPANESE IRIS: June-July. All best protected some through winter and like rich, moist, humus soil.

Mahogany, 30c: Six petals, dark reddish-purple.

Uchiu, 30c: Six petals, caerulean blue, yellow center.

Unnamed Seedlings, 25c: Random colors.

#### OTHER HARDY PERENNIALS AND ROCK GARDEN PLANTS

The measure given is the average height, and the dates, the blooming periods.

Most perennials can be moved well either fall or spring, and many of them through the summer. Plants one foot or under are usually suitable for some place in the rock garden unless too aggressive. Special cultural requirements are briefly noted.

\* Prices, unless otherwise given: Field-grown plants 20c each, \$1.75 per ten, \$16.00 per 100. 3 of one kind for 50c, and 25 or more at hundred rates. Special cultural requirements are briefly noted.

ACHILLEA, Milfoil, Yarrow. Thrives in any soil in sun.

- —filipendulina, Fern-leaved, 3 to 4 ft. Broad corymbs of bright yellow, June-July. One of the best and hardiest garden plants.
- —millefolium roseum, 1 to 2 ft. Rosy pink. Finely cut foliage, June-September. Splendid for cutting.

<sup>\*</sup>PRICES unless noted: 20c each, \$1.75 per 10, \$16.00 per 100. See above.

- ALLIUM-Wild onion. Splendid plants in rockery or border.
- -Chives, 6-8 in. Purplish flower heads in spring, used in seasoning.
- -montanum, 25c: 2 ft., beautiful globular heads of lavender to violet flowers. July-September.
- —Ruby King, 1 ft. Erect large heads of deep rose flowers. June. Splendid for cutting and drying.
- -senescens, 25c: 2 ft. Globular heads of pink tinted to deep violet flowers through late summer.
- AMSONIA salicifolia, Willow-leaved Amsonia, half-shrubby, 3 ft. Splendid foliage always bright and clean, soft yellow in fall. Interesting pale blue flowers. June. Permanent and carefree. Splendid among shrubs.
- —tabernaemontana, 2 to 3 ft. Leaves broader than above. Panicles of pale blue flowers in late May. Worthy much more use in border or among shrubs.
- ANTHEMIS tinctoria, Golden Marquerite, 18 in. Pale golden-yellow. June-October.
- **AQUILEGIA**, **Columbines**. Not particular as to soil, endure some shade. From seed, they vary considerably, so colors can not be guaranteed.
- -Long Spurred Hybrids. Many color combinations and types. May-June.
- ASTER—Harrington's Pink, 40c: 3 to 4 ft. A clear soft pink. Much the best of all. Received award of Merit from Massachusetts Horticultural Society.
- -Queen Mary, 3 to 4 ft. Dark sky-blue.
- ASCLEPIAS tuberosa, Butterfly Flower, 25c: 18 in. Umbels of bright orange flowers in July and August.
- **BAPTISIA australis, False Indigo,** 2 to 3 ft. Dark blue, pea-shaped flowers in 6 in. spikes, May-June. Dry soil in full sun.
- BLEEDINGHEART. See Dicentra.
- BOCCONIA Cordata, Plume Poppy. 6 to 8 feet. Broad sinuate leaves. Creamywhite flowers in plume-like terminal panicles July-August. Fine background. Invading.
- CAMPANULA carpatica, Harebell, 25c: Dense mat, 8 in., clear blue, June-October. Splendid rock plant.

<sup>\*</sup>PRICES unless noted: 20c each, \$1.75 per 10, \$16.00 per 100. See page 31.

- -rapunculoides, 1 to 1½ ft. Nodding, purplish-blue. June-September.
- CASSIA marilandica, Wild Senna, 3 to 6 ft. Large panicles of yellow peashaped flowers with black centers in July. Handsome locust like foliage.
- **CHRYSANTHEMUMS, Hardy.** Obtaining satisfactory kinds is a problem. Most kinds highly recommended elsewhere either lack hardiness most years or freeze before blooming here. All like rich soil, and winter protection.
- —Astrid, 25c: Large single, shell pink with bright yellow center. Claimed to be extremely hardy. Late.
- —Amelia, 25c: 1 ft. Also sold as Pink Cushion and Azaleamum. Broad, rounded cushion growth. 2 in. Bright pink; September till frost.
- -Amelia Bronze, 30c: A deep bronze cushion turning bronzy-yellow.
- —Clara Curtis, 50c: Large salmon-pink daisy-like flowers in August-September.
- -Early Bronze, 25c: Pompom. Small bronze flowers, August-September.
- CLEMATIS—See also under Vines and Creepers.
- -integrifolia coerulea, 30c: 18 in. Nodding flowers, blue. June to August.
- —recta mandschurica, 30c: 2 ft. Clusters of large, fragrant, white flowers in June-July. Heads of wooly seed till winter, very desirable and superior to the common C. recta. Seed heads beautiful when dry.
- COREOPSIS grandiflora, 3 ft. Deep yellow, splendid cut flowers. June-October.
- DAISY, Elders Improved. Superior to the old Memorial Daisy.
- —White Swan, 18 in. A full double pyrethum-like variety blooming in late May.
- DELPHINIUM, Larkspur. All like limestone soil and good drainage.
- -belladonna, 2-4 ft. Light blue, all summer.
- -bellamosa, 2-4 ft. Like above but dark blue, all summer.
- —English Hybrids, 4 ft. or more. All shades, each plant distinct. Plants selected while in bloom will be priced according to size and quality.

<sup>\*</sup>PRICES unless noted: 20c each, \$1.75 per 10, \$16.00 per 100. See page 31.

- DICENTRA eximia, Plumy or Fern Leaved Bleedingheart, 25c: 1 ft. Finely cut light green foliage till frost. Compact growing, flowers from early spring till frozen. Thrives in sun or shade.
- —spectabilis, Bleedingheart. The old-fashioned Bleedingheart, 30c: 1½ to 2 ft.

  Long racemes of graceful heart-shaped, rose-crimson flowers. April-June.

  It likes humus but will grow almost anywhere, even in shade.
- DICTAMNUS RUBER, Gas Plant, 25c: 2½ ft. Rosy purple, veined darker. Strongly aromatic. Very permanent in rich well-drained soil and needs little care.
- ECHINOPS ritro, Globe Thistle, 3 to 4 ft. Large, globular heads of metallic blue, July-August. Good for drying or cutting.
- **FERN—Ostrich, Onoclea struthiopteris, 25c:** 2 to 3 ft. Prefers part shade and leaf-mold, but will endure almost any situation.
- FILIPENDULA ulmaria, European Meadowsweet. 2 ft. Feathery plumes of creamy-white in June-July.
- -rubra venusta, 4 ft. Bright carmine-pink plumes July. Likes moist soil.
- FLAX, Hardy, 1 ft. Bright blue flowers each morning.
- **GAILLARDIA**, **Blanket Flower**. 1 to 2 ft. Flowers have red, yellow, and orange blended. May-October. Endures drought. Very desirable and easily grown.
- —Sun God, 40c: New. Large golden-yellow flowers, about 2 ft. high. Hardy if protected.
- **GRASS, alpine, Festuca glauca,** 1 ft. Thick tufts of very blue-green foliage. Evergreen. Splendid for borders or in rockeries.
- GYPSOPHILA Bristol Fairy, 50c: Grafted, double variety. 1 year plants. Much superior to seedling plants, continuous blooming.
- —paniculata, Baby's Breath, 2 to 3 ft. Misty masses of small white flowers June-July. Much used in bouquets.
- HELENIUM, Riverton Gem, 25c: 3 ft. Deep yellow changing to terra cotta.
- HELIOPSIS zinniaeflora, 2 to 3 ft. Large clear yellow. July-October.
- **HEMEROCALLIS, Yellow Day Lily.** They grow anywhere and are among the very best perennials.

<sup>\*</sup>PRICES unless noted: 20c each, \$1.75 per 10, \$16.00 per 100. See page 31.

- -D. D. Wyman, 40c: 2½ ft. July-August, golden-yellow, tawny splashed petals.
- -Dover, 60c: Early June. Very large deep golden-yellow. 2 ft.
- -Gold Dust, 2 to 3 ft. July. Richest yellow medium sized flowers.
- —Hyperion, 75c: 3 to 4 ft. July-early August. Very large soft pale yellow over a long season.
- -gracilis, 25c: 18 in. Grass-like foliage. Clear yellow flowers in June, and often again in the fall.
- —Lemoni, 50c: 4 ft. stiff upright stems with large pale lemon-yellow flowers closing in hot sunshine.
- -Kwanso, 3 to 4 ft. July. Double, golden-bronze.
- -Mrs. J. R. Mann, 50c: 3 to 4 ft. Rich, deep yellow. July.
- -Mrs. W. H. Wyman, 60c: 4 ft. Large light pale lemon-yellow. August. New. One of the latest and best.
- -The Gem, 50c: 3 to 4 ft. Deep orange-yellow. June-July.
- -thunbergi, The Late Lemon Lily, 2 to 3 ft. July-August. Fragrant lemon-yellow.
- HOSTA, Funkia, Plantain Lily. Thrives almost anywhere.
- -lanceolata, 2 ft. Lilac flowers in September.
- -variegated, 25c: 2 ft. Blue flowers, variegated foliage.
- LIATRIS pycnostachya, Kansas Gayfeather, 4 ft. Long spikes rich purple. July-August.
- LILIUM Lilies. Mostly require well-drained, deep soil, and like protection from the wind. Depth to plant is noted last.
- —canadensis flavum, 40c: 3 to 4 ft. Nodding, yellow, red spotted, June. 5 in. in peaty soil.
- —Concolor, 30c: 18 in. Very pretty upright star-shaped deep crimson. Bulbs small; plant 5 in. Endures sun.
- —elegans, 25c: 2 ft. Orange-red. Upright opening. May-June. Easiest to grow; 5 in.
- -henryi, 40c: 4 to 5 ft. Rich orange-yellow. 10 in.
- —regale, The Regal Lily, 15c, 20c, or 30c, according to size. All are blooming sizes. Large white trumpets shaded pink. July. One of the best and easiest good lilies to grow. 9 in.

<sup>\*</sup>PRICES unless noted: 20c each, \$1.75 per 10, \$16.00 per 100. See page 31.

- —superbum, Turk's-Cap Lily, 25c: 4-5 ft. Reddish-orange. July. 5 in. in peaty soil.
- —tenuifolium, Coral Lily, 15c: \$1.00 per 10:  $1\frac{1}{2}$  to 2 ft. Waxy, recurved, coral red flowers on slender stems. May. Bulbs always small. 6 in.
- -tigrinum, Tiger Lily, 25c: 3 to 4 ft. July-August. Orange spotted black. 9 in.
- —umbellatum, 25c: 2 to 2½ ft. Umbellate heads of upright flowers, dark red shaded orange, June. Very easy to grow. 8 in.
- LILY OF THE VALLEY. A choice large variety.
- LYTHRUM roseum superbum, 25c: Purple Loosestrife. 3-4 ft. Branched spikes of rosy purple. July-August. For moist or wet places. Quite shrubby.
- NEPETA mussini, Ground-Ivy, 1 ft. Compact, beautiful foliage, lavender-blue flowers, constantly. A splendid rockery or wall plant.
- PHLOX multiflora, 25c: A mat of pale lilac, early. Humus soil.
- —subulata atropurpurea, 25c: Purplish-red. The darkest and most popular variety. New.
- —subulata Autumn Rose, 25c: Deep rose with darker center. Blooms in Spring and September to November.
- -subulata Emerald Cushion, 25c: Deep pink. Very dark green foliage.
- -subulata rosea, Rose pink. The commonest and only variety many know.
- -subulata vivid, 25c: Vivid pink. The best dwarf pink. Slow growing.
- —suffruticosa, Miss Lingard, 25c: Pure white, very large, long trusses, and very early. Dark, green foliage, 2 ft.
- PHLOX paniculata, Garden Phlox. All like rich, moist, well-drained soil, and a mulching of well-rotted manure in winter.
- -Africa, 25c: Brilliant carmine-red with darker eye. Large compact trusses.
- -Betty Lou, 25c: Orange-scarlet with crimson eye. Quite dwarf.
- -Brilliant, 25c: Brilliant scarlet with darker eye.
- -Daily Sketch, 30c: Very largest of all, bright salmon-pink, carmine eye.
- -Enchantress, 25c: Soft salmon-pink with darker eye, vary large.
- -Mia Ruys, 25c: Large heads pure white, dwarf.

<sup>\*</sup>PRICES unless noted: 20c each, \$1.75 per 10, \$16.00 per 100. See page 31.

- -Painted Lady, 25c: Pink with deeper center.
- -Rokoko, 25c: Clear soft pink, very large flowers.
- -Special France, 25c: Delicate rose with carmine-rose eye.
- -Von Lassberg, 25c: Tall, pure white.
- -Wm. Kesselring, 25c: Violet-purple, white radiating from center, dwarf.
- PHYSOSTEGIA, False-Dragonhead. Thrives in any good soil.
- -Rosy Spire, 25c: 2-3 ft. Deep pink, heavy spikes of rosy crimson in September.
- —virginica vivid. 1 to 2 ft. Deep pink. Early September till hard freezing. Fine for cutting. One of the choicest fall blooming dwarf perennials. Endures considerable shade.
- PLATYCODON grandiflora, Balloon Flower. 2 to 3 ft. June-October. Large ball-shaped flowers, either blue or white, inflated balloon-like buds.
- POPPY—Oriental, Olymphia, 25c: Double, free blooming rich scarlet. Earliest.
- PYRETHUM, Persian or Painted Daisy, 2 to 3 ft. All colors white to deep red, as they run from seed.
- -Red, 25c: Selected plants.
- RANUNCULUS acris, English Buttercup. 1 to 2 ft. Upright, branching sprays small double waxy golden yellow flowers, May-June. Fine for Memorial Day.
- —repens, similar to above, but prostrate, spreading rapidly. Glossy dark green foliage.
- RUDEBECKIA—Black-Eyed-Susan. 12-16 in. Truly perennial, bright orange-yellow with black centers. July-August.
- RUELLIA ciliosa, 25c: Long-tubed lavender flowers through the summer. For sunny places.
- RUTA PATAVINA, Rue. 1 ft. Blue-green aromatic foliage; small yellow flowers. Light sandy soil. An old-fashioned herb.
- SALVIA azurea grandiflora, 3 to 4 ft. Sky blue, August-September.
- SAXIFRAGA crassifolia, 30c: 1 ft. Broad green foliage, rosy pink flowers, April-May. Very fine among rocks. Leaves turn red in winter.
- SEDUM, Stonecop, Liveforever.
- -ewersi, 3 to 4 in. Grayish foliage, pinkish flowers.
- -kamstchaticum, 6 in. Bright green foliage, golden-yellow flowers.
- —middendorffianum. Low, tufted plants, spreading 1 ft. Linear dark green leaves turn red in fall. Yellow flowers. Very choice kind.

<sup>\*</sup>PRICES unless noted: 20c each, \$1.75 per 10, \$16.00 per 100. See page 31.

- -sexangulare. Moss-like linear leaves, yellow flowers.
- -spectabile brilliant, 18 in. Broad flat heads of rosy-crimson flowers.
- -spectabile variegata. 1 ft. Pink flowers, leaves striped yellowish.
- -stoloniferum coccineum. 6 to 8 in. Rosy-crimson, July-August.
- SEMPERVIVUM, House Leek, Hen and Chickens. All excellent in rockeries.
- -blandum, 25c: Large rosettes, reddish colored.
- —globiferum. Small globular rosettes. Young plants roll away and strike root readily.
- —tectorum. Rosettes 5 to 6 in. in diameter. Flowers pale red. 1 ft.
- STATICE latifolia, Sea Lavender. 1 to 2 ft. Broad, thick leaves, upright, finely branched panicles of small blue flowers. August-September. Splendid cutting and drying. Endures driest weather.
- THERMOPSIS carolina, 30c: 2 to 3 ft. Bright yellow lupine like flowers in June and July.
- **TULIPS** will be priced at blooming time or later, and in the fall will be available in home grown bulbs regardless of the European War.
- **VERBENA** venosa, **Hardy** Verbena, 12 in. Violet-purple, June-October. Very compact growth and free blooming.
- **VERONICA**, **longifolia subsessilis**, **25c**: Long spikes of dark blue, July-September. Likes moisture.
- —rupestris nana. 1 in. Prostrate. Forms dark green carpet. Gentian blue. April-May.
- -rupestris, 3 to 4 in. Trailing, bright blue in June. Makes a thick carpet.
- -spicata, 2 ft. Erect spikes of deep blue in June.
- -teucrium, Royal Blue, ½ to 1 ft. Spreading, blue flowers, May-June.
- -virginica, Culvers root, 3 to 4 ft. Spikes of white flowers. May-June.
- VINCA minor, Trailing Myrtle. Evergreen. Lilac-blue. April-May.
- -Bowles' Variety, 25c: Has larger deeper rich blue flowers.
- VIOLA-missouriensis. Very fragrant, lilac and purple. May and September.
- -odorata, Sweet Violet. Very fragrant, rich violet, small.
- YUCCA filamentosa, Adam's Needle, 4 to 6 ft. Tall, pyramidal clusters of large, creamy flowers. June-July. Heavy 3-year plants, 40c: 2-year, 25c.

<sup>\*</sup>PRICES unless noted: 20c each, \$1.75 per 10, \$16.00 per 100. See page 31.

### APPLES

Apple trees should be planted 30 to 40 feet apart. They respond to good cultivation, fertilization, and care as freely as does corn or any other crop. Small fruit bushes, garden truck or other comparatively short lived bushes or annual crops may be grown between while the trees are small.

#### EARLY VARIETIES

Duchess Red Duchess Liveland (Lowland Raspberry) Yellow Transparent

Sharon

Tolman Sweet

Yellow Delicious

#### FALL VARIETIES

Benoni

Wealthy

Snow (Famuese)

Milton

#### WINTER VARIETIES

Cortland Delicious, Red Grimes (Golden) Hibernal Joan

Jonathan McIntosh Northwestern (Greening) Turley Northern Spy Prairie Spy

#### CRAB APPLES

Whitney

Wynema, 4-5 ft.

Virginia

Wynema is a hybrid of the Wild Crab, and about the size and color of Whitney, otherwise like the Wild Crab.

Hibernal and Virginia are valuable chiefly as very hardy, stout stocks upon which to topwork and better but less vigorous or hardy kinds.

See also Red Flesh, Flame, Dolga, and Soulard among the ornamental Crabs.

PRICES of all apple and crab apple:	Each	Per 10
5-6 ft. 11/16 in	\$0.75	\$6.50
4-5 ft. 9/16 in.	60	5.00

#### CHERRIES

Plant on well-drained soil only. Elsewhere they will be unsatisfactory.

Early Richmond and Montmorency are the most dependable and the most planted. Yellow Glass is a true sweet cherry and is more tender than the others.

These are standard grades. The caliper governs.	ch	Per. 10
5-6 ft., 11/16 in. and up. \$	0.75	\$7.00
4-5 ft., 9/16 in11/16 in.	.60	5.50
3-4 ft., 7/16 in9/16 in.	.45	4.00

Patten

Bartlett

## PEARS

Kieffer Lincoln	Parker Seckel	
PRICES of all standard Pears: 5-6 ft. 11/16 in.		Per 10 \$6.50
4-5 ft 9/16 in	60	5.00

**DWARF PEARS** are grafted on Quince roots, which dwarf and bring them into bearing earlier. They are most useful where room is limited, and as decorative trees for garden planting or for training into special forms. Duchess does particularly well as a dwarf.

Bartlett	Kieffer
Duchess	Seckel
Flemish Beauty	

5/8 in. and up, mostly 4 ft. and up. Each Per 10 \$9.00

#### PEACHES

Peaches in central Iowa should be planted where they will have as much protection as possible, for no variety is fully hardy.

PRICES-Budde	ed varieties.			Size	Each Per 10
Champion,	Marquette,	and	Polly.	 5- 6 ft	\$0.60 \$ 5.00

Polly is a large, white, Iowa freestone, described as extremely hardy.

#### APRICOTS

	Size	Each
Anda, Ninguta.	5-6 ft.	\$1.00
Anda, Ninguta.	4-5 ft.	.75
Manchu.	3-4 ft.	.60

All are Prof. Hansen's new hardy varieties and certainly are best for severe climates. These are well worth planting as ornamental as well as fruit bearing trees. They have good foliage and form and very beautiful large rose-pink flowers real early in the spring before there are any leaves to conceal them. All are on hardy plum roots.

#### **PLUMS**

Damson	German Prune	Superior
Elliott	Lombard	Surprise
Ember	Moors Arctic	Toka
Fiebing	Sapa, 4-5 ft.	Underwood

Plums thrive in rich moist bottom lands, or even quite wet soils.

Surprise is a pure American variety of splendid quality for all purposes, and valuable especially as a pollinizer for the hybrid varieties.

Underwood, Superior, and Ember are splendid large new hybrid varieties from the Minnesota Station. All have very small seeds and high quality but will not pollinate one another. To secure pollinization, plant trees of a native variety like Surprise, or another type of hybrid such as Toka, among them as pollinizers in the proportion of 1 or more to 6 or 8 of the trees to be pollinated.

Toka itself is one of the very best plums and has a pronounced fragrance and apricot flavor.

Sapa is a hybrid of the Western Sand Cherry produced by Prof. Hansen and is a dwarf tree which bears at any size. The fruit is of medium size, has purple flesh, a very small pit, and is splendid for canning.

German Prune, Lombard, and Moors Arctic are European or Blue Plums which should be planted in protected places.

PRICES of Plum trees:	ich	Per 10
5 to 6 feet, 11/16 in.	0.75	\$6.50
4 to 5 feet, 9/16 in.	.60	5.00

#### CURRANTS

Currants are offered for local sale only, and cannot be sent out of Iowa.

Red Lake

White Grape

Red Lake is the extra large variety developed by the Minnesota State Fruit Breeding Farm and is rapidly coming to be considered the best red currant. 2-year bushes of above varieties. ...............30c each \$2.50 per 10 \$20.00 per 100

## GOOSEBERRIES

For local sale only. Cannot be sent out of the state.

Champio	n	Downing	
PRICES—2-year plants.		30c each	\$2.50 per 10

#### GRAPES

Agawan, large red. Beta, small, early, black. Concord, black. Diamond (Moors), large, white. Moors Early, large, early, black. Niagara, large, white. Worden, large, black.

PRICES—	Each	Per 10	Per 100
Concord	80.15	\$1.25	\$ 9.00
Others listed above	.20	1.75	15.00
The following varieties listed at	.40	3.50	
The following varieties listed at	.30	2.50	

Most of these are new varieties produced by the N. Y. Exp. Station. They have exceptionally fine fruit but the hardiness of the vines is not well determined, and we recommend covering them till it is ascertained. The grower who will give them extra care can get some very fancy fruit.

Brockton, 40c: Green, one of the very best for home use.

Caco, 30c: Red, productive, fine appearing and splendid quality.

Fredonia, 30c: Black, about two weeks earlier than Worden.

Golden Muscat, 40c: Very late, large yellow of highest quality.

Keuka, 40c: Dark red, European type, very highest quality.

Pontiac, 40c: Black, productive, sweet and hardy.

Portland, 30c: Green, early, large berries, excellent quality.

Seneca, 40c: Yellow, almost pure European, very high quality.

Sheridan, 30c: Black, late, ripening better than Concord in bad seasons.

Watkins, 40c: Reddish black, splendid for home use.

## RASPBERRIES

The black varieties grow from tips and do not spread much; red varieties sucker freely.

Raspberries are usually planted in hedge rows about 2 feet apart in the row.

Cumberland is the most planted black variety.

Latham, is the large, better known red variety.

Sodus is a very vigorous, hardy, productive purple variety and the best of its color. Immense in size, soft for market.

PRICES—	Per 10	Per 100	Per 1000
Latham	\$0.50	\$4.00	\$35.00
Cumberland transplants	.80	7.00	
Sodus tips	.60	5.00	

## BLACKBERRIES AND DEWBERRIES

PRICES—	Per 10	Per 100
Snyder and Eldorado Blackberry, root cutting plants	\$0.60	\$5.00
Lucretia Dewberry, transplants		5.00

#### STRAWBERRIES

Dunlap is the old standby. It is very satisfactory under a wide range of conditions.

Blakemore seems superior to Dunlap under some conditions. The plants are deep roooted and endure drought well.

Fairfax and Dorsett are new varieties with very large sweet berries introduced by the U.S. Department of Agriculture.

The Gem is a fall bearing variety of good quality and size if growing conditions are good. Usually, fall bearing strawberries are better farther north.

Plant new beds each year in rows 4 feet apart and 18 inches in the row.

PRICES—					Per	100	Per 1000
Dunlap, B	lakemore,	Fairfax,	and	Dorsett	\$1	.00	\$ 9.00
The Gem,	fall bearing	ıg			2	.00	

### ASPARAGUS

This is one of the first spring vegetables ready for use, and one of the most wholesome of them. Plant it along the fence and plant it by the hundred rather than by the dozen. Plant shallow in deeply prepared bed. Fertilize heavily when established.

Martha Washington (Rust Proof)

PRICES—	Per 10	Per 100	Per 1000
2-year plants, heavy	\$0.40	\$2.50	\$18.00

## RHUBARB

Rhubarb, like Asparagus, should be planted in rich soil where it need not be disturbed, and will produce a great lot of wholesome food with a minimum amount of work. Heavy clumps of it may be forced in the furnace room in winter if they are dug in the fall and allowed to freeze hard before taking in.

Linnaeus, heavy divisions		Per 10 \$1.00
McDonald, strong divisions  A fine new kind from Canada with a high sugar content and fine flavor. Produces little seed so can be used over a longer season than the common rhubarb.	40	3.00

### **NUT TREES**

TRANSPLANTING. Nut Trees are not as difficult to transplant as many believe but do require much more careful handling than fruit trees. The roots will not endure as much exposure and the tops should be cut back heavily. Usually the more the top is reduced the better the growth the first year. Cut ends should be waxed and the stem given a loose wrapping to prevent dessication. Nut trees are hand dug and usually have long, deep roots. Holes should be dug deep enough to avoid crowding them and pulverized moist peat mixed with top soil filled around them. A basin may be left around the tree and filled with peat to facilitate watering and hold the moisture. If peat is not available fill in with mellow top soil and put a mulch of strawy manure about the tree.

The common pests of nut trees are the Walnut Caterpillar and Fall Webworm. Either may entirely defoliate walnut or other trees in late summer. Spraying in mid-summer with arsenate of lead is an effective control.

**BLACK WALNUTS** are very heavy feeders and do best in deep alluvial soil. They are generally quite unsatisfactory on poor upland soil. Well established trees may be given heavy applications of barnyard manure or other fertilizer judiciously applied and will yield larger better filled nuts because of it.

Being native, Black Walnuts are hardy and well adapted to Mid Western planting. Growth starts late in the spring and stops early in the fall so unseasonable cold spells almost never injure them. The English or Persian Walnut differs in this respect and will grow too late in the fall if growing conditions are favorable and can then be severely frozen. None has been found which has really proven dependable here, and if they were, do not have the fine flavor of the Black Walnut and would be superior only in easier cracking. No other nut except the Hickory retains its favor as well as the Black Walnut after heating, and their use is increasing in baking goods and confectionery. Consumers who have had nuts of the improved varieties appreciate their superiority and insist on having "Those walnuts which crack out in halves and quarters", and willingly pay double the price of common walnuts for them.

The grafted kinds are also superior for landscape planting being more thrifty and having larger, darker, glossy green foliage.

Thomas is the best known and succeeds over a wide territory. Within the whole range of the Back Walnut only a few distant sections report another kind preferable to Thomas, and commercial plantings are mostly of it. The tree is hardy, very vigorous, productive, and a very young bearer, switches one year old often bearing the following season. The nuts are large, easily hulled and fairly thin-shelled. The kernels have fine flavor and color, easily crack out in halves and quarters, and the yield is ten pounds or more per bushel. Sizes, 6-8 ft.; 5-6 ft.; 4-5 ft.; 3-4 ft.; 2-3 ft.

**Ohio** has a large oblong hull which is difficult to remove. The nut is long and pointed, with a thin shell, is easy to crack and has splendid quality. Size, 5-6 ft.

**Rhower** is a hardy variety from Northern Iowa, which under some conditions has scored considerably better than Thomas. The nut resembles Thomas, with light colored mild flavored kernels. Sizes, 5-6 ft.: 4-5 ft.

Stambaugh won first prize in the 1926 contest of the Northern Nut Growers' Association with more than 1,200 competitors. Reports of its performance so far have been remarkably, uniformly good. We believe it may prove to be a better tree and a strong rival of Thomas for first place. Sizes, 6-8 ft.; 5-6 ft.; 4-5 ft.

**Cresco** is a medium sized nut of good quality which is expected to prove hardier than most varieties since it comes from near the Minnesota line. The trees are very thrifty and bear early. Size, 5-6 ft.

A few trees are available of Creitz, Stabler, Tasterite, Wandra, and Wiard at the prices below. Sizes available on application.

 PRICES—of Grafted Walnuts.
 6-8 ft
 5-6 ft.
 4-5 ft.
 3-4 ft.
 2-3 ft.

 See sizes after each variety.
 \$2.50
 \$2.00
 \$1.75
 \$1.50
 \$1.25

**Hybrid Walnut Seedlings.** These are grown from seed and are crosses of the Japanese Walnut and Butternut. The tree grows very rapidly, is wide spreading, has light colored bark, very large leaves and nuts which resemble butternuts in appearance and flavor but grow in very large clusters. 6-8 ft. trees, \$1.50 each.

#### HICKORIES, HICANS, AND PECANS

The Shagbark Hickory has an exceptionally rich flavor that is carried through the process of baking better than that of any other nut. Their use is limited because of the difficulty of separating the kernels from the hulls in the ordinary wild nuts. This is overcome in propagated varieties like Stratford for example, the entire kernel of which often cracks out in one piece.

Hickory trees are slow to become established after transplanting and it is very important that the top be heavily reduced and good care given them. Once well established they are very persistent as early settlers found when they attempted to kill out a grove of hickories.

The Hickories do better on the hills and hillsides and the Pecans and Hickor, which are usually grafted on Pecan roots, on the rich bottom lands.

Pecans grow considerably faster than Hickories. They bloom two weeks later and require a longer season to ripen so the nuts very seldom mature before being frozen here, and as nut producers they have little value. The trees of the most northern kinds are hardy and well worth planting for ornamental trees, or for stocks upon which to graft the Hickories and Hybrid Hickories. Only ungrafted trees grown from the most northern Iowa seed procurable are quoted.

Hicans are nature's own crosses of the Hickories and Pecans and usually ripen in central Iowa. They have been found mostly near the Mississippi river north from St. Louis. The nuts are larger than the northern Pecans, do not have a bitter inner shell, and partake of the hickory flavor, so are better than pecans. They grow rapidly, and make a very beautiful tree, but the varieties now available require several years to start bearing nuts.

It takes so long to grow hickory stock to grafting size and the grafting is so susceptible to failure due to uncontrollable weather conditions that hickory grafting is not attempted by most nurserymen, and grafted hickories will always be costly compared to other grafted trees.

Creager comes from northern Iowa and is probably a hybrid of the Bitternut. The tree has dark, glossy green leaves, is very rapid growing and one of the most beautiful of the hickories. The chief criticism of the Creager is that the nuts are too small but they have a very thin husk and shell, crack out nicely, remain sweet a long time, and are produced in great profusion.

Fairbanks is a large, thin shelled Bitternut hybrid, which someone has said has everything desirable in a hickory variety except quality. When first tasted one notices a bitterness which disappears if more are eaten or in baking. Most people who have it fruiting are pleased with it, and being such a young, heavy, and regular bearer, it is well worth planting.

Stratford is the earliest bearing shagbark we have, and it is a heavy producer. The smooth, white, thin-shelled nuts crack very easily. The kernels

often come out whole, and have good quality. It is one of the earliest ripening kinds. This variety grows well on bitternut stock, and has given some wonderful results top-worked on them.

**Hagen** is our most rapid growing pure shagbark, and coming from northern Iowa, we believe it one of the hardiest kinds. The nuts are large and crack out over 40% meats, mostly in halves and are unexcelled in richness and flavor. They require more age before beginning to bear than most kinds.

**Des Moines, Burlington** (also called Marquardt), and **Bixby Hicans** are grafted on hardy pecan roots which adapts them to rich moist bottom soil.

PRICES— 5-6 ft	. 4-5 ft.	3-4 ft.	2-3 ft.
Burlington Hican \$	\$3.00	\$2.50	\$
Bixby Hican 18-24 in. \$2.50			
Des Moines Hican	137		2.00
Creager Hybrid Hickory	2.50	2.25	
Fairbanks Bitternut Hybrid	3.00		
Hand Shagbark	1933	2.50	
Hagen Shagbark	3.00	2.50	2.00
Stratford Shagbark	1272	2.50	2.00
Pecans, not grafted, Iowa seed	1.00	.80	.60

THE WINKLER HAZEL makes a splendid ornamental shrub 6 to 7 feet high and produces the largest nuts of the native hazels. They have the splendid flavor of the wild hazelnuts and in good seasons may be over an inch across. The bushes bear when two or three feet high and a single large bush has produced over six pounds of nuts. In severe climates the staminate catkins may be winter-killed, in which case there would be no nuts produced unless a wild hazel or some kind known to be a good pollinator is planted close by. Farther south Winkler is reported as bearing very regularly, and more satisfactorily than Filberts. In fall, Winkler foliage is very attractive with scarlet and bronze tints.

All sold till the fall of 1941.

TURKISH TREE HAZEL. 30 feet or more. This hazel grows into a beautiful tall pyramidal tree which does not succor. The corky, light yellowishgray bark is very attractive, and characteristically furrowed with age. The foliage resembles that of the hazel bushes. The nuts are fair sized and enclosed by bracts having curly lacinated tips. This very attractive tree is fully hardy in central Iowa but is also extremely rare. 3-4 feet trees, \$1.50 each.

GRAFTING WAX. Nut Tree Grafting is usually done later than fruit tree grafting and nut tree cions are much slower starting so are often still dormant when some very hot weather comes. The waxes commonly used break up or separate in such weather and penetrate between the cion and stock hindering or preventing a union. After much experimenting the U. S. Department of Agriculture has developed a wax which does not do this and so gives a much higher percentage of successful unions. It is composed only of Rosin, Beeswax, and Kieselguhr and we are pleased to offer it at 50c per pound or \$4.00 for ten pounds. Postage additional. Try this for any grafting and see if it does not greatly increase the success of your work, and especially under unfavorable weather conditions.

THE NORTHERN NUT GROWERS' ASSOCIATION is an organization of progressive people of many different vocations who are interested in the advancement of nut culture. An annual report is published which contains upto-date information on the subject and is well worth the \$2.00 membership fee. All interested in nut trees should join. Memberships may be sent to D. C. Snyder, Treasurer, Center Point, Iowa.

# ORDER SHEET

## SNYDER BROS., Inc., Center Point, Iowa

Date	, 1941. Forward by, Frt	Exp Truck o	r Parcel Post		
Го	Ab	out when			
P. O	Sta	ite			
R. F. D. Shipping	or P. O. box. g point	Total of order			
		nt. enclosed			
If size o	iety is exhausted, may we substitute a si rdered is exhausted, may we sub- smaller one and refund balance?				
Quant.	NAME OF VARIETY	Size	Amount		
	Total Carried Fo	orward			
	(over)				

#### ORDER SHEET—Continued

Quant.	NAME OF VARIETY	Size	ze Amount		
	Carried Forward				
Plant.					
7					
	TOTAL				

Iowa Customers must add 2% Sales Tax

# TERMS

PRICES. We do not agree to supply stock from other growers at these prices after our supply is exhausted. These prices are for the stock, properly packed and delivered at the Nursery, the stations here, or at nearby towns, in case we make general deliveries there. Small plants will be sent postpaid by parcel post within the second zone, or the third zone if not too heavy. It is now possible, by cutting them back considerable, to send a few fruit trees 5 to 6 feet by parcel post, but it is not practical if several are wanted. Express rates are equally low with no restriction as to size.

CONDITIONS. All orders are accepted on condition that they shall be void should any injury befall the stock from hail, frost, fire, or other causes beyond our control. Deliveries are subject to delay by bad weather, bad roads, strikes, accidents, embargoes, or any causes beyond our control.

TERMS OF PAYMENT are cash on or before the delivery of the stock, unless previously otherwise agreed upon. Remittances may be by check or any convenient form, payable to Snyder Bros., Inc.

CLAIMS for errors or shortage will be considered if made immediately upon receipt of the stock.

GUARANTEE OF GENUINENESS. While we exercise the utmost diligence to have all of our varieties true to name, and hold ourselves in readiness on proper proof to replace all stock that proves untrue to name, we do not give any warranty, expressed or implied, and in case of any error on our part, it is mutually agreed between the purchaser and ourselves that we shall not at any time be held responsible for an amount greater than was originally paid for said stock.

SHIPPING FACILITIES. Our facilities for shipping by either freight, R. R. express, or Motor Truck Lines are excellent. We are located adjacent the station grounds of both the C. R. I. & P. and W. C. F. & N. Railways. Nursery stock takes second class express rates, and small, distant orders are best sent this way.

TRUCK SERVICE can be arranged with local truckers at rates comparable to railroad freight rates, for those at a distance who have a truck load of stock and prefer to have it come that way. It is better for the stock to be sent by truck, for then it is handled much less, does not have to be crowded into crates or boxes, and is not subject to delays and transfers enroute.

